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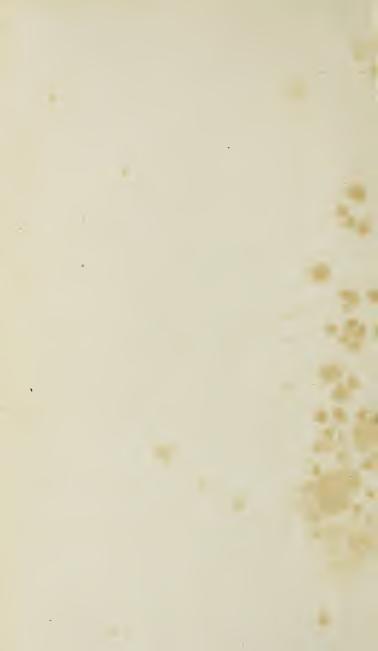
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### THE

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# INDEX.

PAGE.

A Lay Sermon-The I	Pulpit -In	Self Vir	dicatio	n					8
Arab Horses Elephant									18
A Kurveyor's Story, by									105
A Ride for Life and a	Wife_A c	tory of	the ISa	4 war	• •				223
A Fortnight in Holland	d by a Can	e Colon	ict	4 "	• •				235
Anguard	i, by a Cap	e Colon	.191	••	• •		• •	• •	
Answered Archives, The Colonial	Du Du	T XXI C		) and t	• •		• • •	• •	244
Archives, The Colonia	.—ву Dr.	j. w. c	, van C	Jordi	• •	• •		• •	257
D. 11 T.									0
Banking, Letters on	••	• •	• •		• •	• •	• •	77, 143	, 270
Botany, South African	••	• •	• •	• •	• •	• •		• •	316
Census of 1875, The Cape Colony, Land in t		• •	• •	• •	• •	• •	• •	• •	I
Cape Colony, Land in t	he		• •			• •	• •		, 109
Colonial Stock Food Pl	lants, by Pi	rof. Ma	Owan						83
Colonial Comparisons-	- South Aus	stralia			- •			11	5, 295
Charles Kingsley Capital Punishment, by Caucasus and Daghestar									129
Capital Punishment, by	Major Ers	kine							179
Caucasus and Daghestar	n, The East	tern-B	y His	Excelle:	ncy L	ieutGe	neral!	Sir A.	
Cunvnghame, K	.C.B.		·						213
Cunynghame. K Colonial Archives, The	-By Dr. 1	. W. G	. van C	ordt					257
Characteristics of some	of our Fell	ow Cole	onists. I	v Prof	I. M	urrav			36
Characteristics of Some	or our rem	011 001		,			• •	• • •	20
Damaraland and Great	Mamaguala	nd.							۲0
			••	• •		••		••	59
De Profundis	••		• •	• •	••	• •	• •	• •	142
Diamond, My first	••	**	• •	• •	••	• •	• •	• •	188
771 1 1 1 1 7 7									- 0
Elephants and Arab Ho Explorations, Mr. H. M Egypt, The Last Plague	rses, by Ma	ajor Ers	kıne	• •	• •	• •	• •	• •	18
Explorations, Mr. H. N	<ol> <li>Stanley's</li> </ol>		• •	• •	• •	• •	• •	• •	312
Egypt, The Last Plague	of			• •	• •	• •	• •	• •	226
Fides									17
Food Plants, Colonial S	tock—By	Prof. M	acOwar.	١			٠.		83
Fungi, Inquiry for Two	Cape-By	Prof. I	MacOw	an					123
French Refugees, The									185
French Refugees, The Frontier Armed and Mo	ounted Poli	ce. The							250
Fort Pelly to Winnipeg,								285	
Forget-me-Not	-,								, 35
			•	•		• • •			
Great Namaqualand and	d Damarala	nd			٠٠ ـ				59
Geology of the Western		Motes	on the-	By Th	ne B	in CE		• • •	171
Grey Collection of Sout	h A frican	Doblic I	ibrary	The	103, 10			• • •	185
						• •	• •		
Grietje	••	• •	••	• •	• •	• •	• •	••	333
I- C-16 37! - 1! ! / C	1 . D 1 .	A T							8
In Self Vindication - T	ne Pulpir-	A Lay	Sermor	1	• •	• •	• •	• • •	
Inquiry for Two Cape I	rungi, by P	rof. Ma	icOwan	• •	• •	• •	• •	• •	123
Irrigation, by J. G. Gar	mble	• •	• •	• •	• •	• •	• •	• •	228
Journey to the North-	Norway, S	weden,	and Fir	ıland,—	-By Li	eutGe	neral S	ir A.	
Cunynghame, K	C.B. (cone	cluded)						• •	23
judge watermeyer aad.	nis writing	gs							228
Karoo, The Water Supp	ply of the-	-By W.	Prosser	r, F.G.	S			3	5, 99
Kafir Nursery Tales									55
Kafir Nursery Tales Kingsley, Charles—A R	eview.								129
									,
Land in the Cape Colon	V							40	. 100
Letters on Banking	,							77, 143	278
Lines	••			• •	••	• •		//, 143	
	• •	• • •		• •		• •	• •	• •	104

									PAGE
L'Envoye Love in Death Letters of the Magnates Sc Last Plague of Fount The									122
Love in Death								••	124
Letters of the Magnates Se	otion	••	٠.	• •	• • •		• •		182
Letters of the Magnates Sc	Ottac	• •	• •				• •	• •	
Last Plague of Egypt, The	••	• •	• •	• •	• •	••	• •	• •	226
Music of the Future, The								93	359
Mnemosyne									115
Magnates Scotiae Letter o	fthe								182
My First Diamond		••		• • •	• • •	• •	• •	• • •	188
Meta	••	• •	• •	• •	•••		• •		
Meteorology		• •	• •	• •	••	• •	• •	191, 320	
Method, The Philosophy o	f								245
Mellowing									294
Music of the Future, The Mnemosyne Magnates Scotiae, Letter o My First Diamond Meteorology Method, The Philosophy o Mellowing									'
Norway, Sweden, and Finla							eral (	Sir A	
				TAOLUIT.	— Бу Г	icut,-Gen	ciai .		
Cunynghame, K.C.	B. (cond	iuaea)	• • •	_ • •		••-	• •	• •	23
Notes on the Geology of th	e West	ern Di	stricts,	By Th	os. Bai	n, C.E.	• •	• •	171
Notes on the Geology of the New Year's Greeting, The New Books									178
New Books									382
Native Races of South	A frien	0111 D	alation		Poore	maihilitiaa	t-0	Drize	3
Native Races of South A	Arrica,	our 1	celation	s and	Respo	nsibilities	10-	11120	
Essay—By V. Samp	son	• •	• •	• •	• •	• •	• •		321
On one Betrothed Our South African Snakes,									150
Our South African Snakes	by Fret	ann Pil	llane			• •	• •		302
Overland Tolograph and	the O			۸ د.: ـ ـ	The	D., Th.,	387	***	302
Overland relegiaph and	the O	pennig	, 01 2	mica,	I ne	- Dy 11103	. ***	accom	
F.R.G.S., F.R.A.S.		• •	• •	• •	• •	• •	• •		272
Poetry and Science, by Rev.	. H. M.	Foot							193
Proverbs of all Nations			• •	• • •	•				
Proverbs of all Nations Prize Serial Story	••	• •	• •	• •	• •	• •	• •	• •	255
Prize Serial Story	• •	• •	• •	• •	• •	• •	• •	• •	383
Poetry—									
Fi.Jos									T **
rides	• •	• •	• •	• •	• •	• •	• •	• •	17
The Evening Star		• •	• •	• •	• •	• •	• •	• •	76
To the Sea				• • •					81
Lines									104
Mnemosyne				• •					115
I 'E	••	• •	• •	• •	• •	••		••	
L Envoye	• •	• •	• •	• •	• •	• •	• •	• •	I 22
Love in Death				• •					124
Volksliederen									128
De Profundis.									142
On one Retrothed	••	••	• •	• • •	• • •	••			150
On one netrothed	1:	• •		• •	• •	•••	• •	••	
Ine New Year's Gr	ecting	• •		• •	• •	• •	• •	• •	178
Sonnet									181
To Music									187
Fides									190
Sonnet		• •			• • •				222
Sonnet			• •	• •	• •	• •	• •	• •	
Ine Last Plague of	Egypt		• •		• •			• •	226
Sympathy									234
Answered									244
The Swallow's Sona	in the	North							256
The Swallow's Solig	, in the	1401111	• •	• • •	• •	• •	••	• • •	
To a Traitor	• •	• •	• •	• •	• •	••	• •	• •	271
To the North Wind		• •				• •		• •	283
Mellowing									294
Mellowing Grietje Forget-me-Not					••				333
Forget-me-Not							٠.		351
2 orget-file-140t	• •		• •	• •	• • •	• • •	• •	• • •	33*
Dil- C. Tic 1 Tests			0						
Ride for Life and a Wife-	A Story	of th	e 1834	war	• •	• •		• • •	223
Ride for Life and a Wife— Rivers, The Names of our Races of South Africa, N									291
Races of South Africa. N	ative-	Our I	Relation	and	Respon	nsibilities	to	Prize	
Essay-By V. Samp	son								380
zoon, z, . oamp					••	•••	••		,
Court A City D		, ,	T 11	4 D					
South Africa—Past and Pr	esent, l	oy J. N	oble	-A Rev	iew.	• •	• •	• •	65
Sonnet									181
Sonnct Science—In its Relation to	Poetry	by R	cv. H	M. For	ot				193
orret									222
									244

									P.	AGE
Sympathy								٠.		234
Swallow's Song in the Nor	th									256
South Australia-Colonial	Compar	isons						:	116,	
Stanley's Explorations, Mr.										312
South African Botany										316
South African Botany Snakes, Our South African	—Ву Е	ustace I	Pillans							302
The Census of 1875										I
The Pulpit-In Self Vindio	cation-	a Lay S	Sermon							8
The Water Supply of the K	Caroo, by	/ W. P	rosser,	F.G.S.					35	, 99
The Evening Star			••							76
To the Sea										81
The Music of the Future						• •		٠.	93,	359
The Way we Live, by W.	H. Ross	, M.D.							,,,	151
The New Year's Greeting										178
The French Refugees										185
The Grey Collection of the	South A	African	Public	Library						185
To Music										187
The Three Wishes										190
The Eastern Caucasus and										,
Cunynghame, K.C.	в.				·.					213
The Last Plague of Egypt										226
The Philosophy of Method										245
The Frontier Armed and M	founted	Police					••			250
The Swallow's Song in the						••				256
The Colonial Archives, by				dt						257
To a Traitor								••		27I
The Overland Telegraph	ind the	Oneni	ne un	of Af	rica. by					2/1
F.R.G.S., F.R.A.S.				••			••	• •		272
To the North Wind										283
The Names of our Rivers					••			٠.,	91,	
Tree Planting in the Punja										363
aree raneing in the ranja	ub	• •		••	••	• •	••	• •		303
Volksliederen										128
	••	••	• •	••	••	••	• •	••		120
Water Supply of the Karoo	The	By W	Prosser	F.G.S	3.				4 -	00
Watermeyer's Writings, Ju							• •		35,	
Western Districts, Notes or	the G	eology o	f the	Ry Th	ne Rain	CF	• •	• •		45
Watermeyer, Advocate F. S								• •		171 226
acondito joi, minvocate I. J	A D	OKIAPII	icai one							440



#### THE CAPE

# MONTHLY MAGAZINE.

#### The Census of 1875.

I.

At last the patiently-expected results of the Census of 1875 are published. A portly volume and a goodly is here presented to us, sumptuous in typography and paper, and bristling with valuable facts conveyed in those funny "tailed figures" to which compilers of numerical tables appear to attach a cabalistic value. But these four hundred pages and the wondrous maps which crown them with kaleidoscopic splendour are only part of a magnificent whole, for we observe that these are only the summaries and that we may therefore expect an endless procession of appendices, wholly bemuddling and exasperating the legislative brain, and satiating the curiosity of nascent philosophical societies and newspaper critics with paradoxes for tenebrous and intricate discussion.

Whatever may follow, we have probably in these tables and the prefatory report the most valuable results of the Census taken two years ago. In form no better model could be found than the one followed—the statistics of New Zealand; and although the minuteness which so greately increases the bulk of the tables might have been avoided without perceptible diminution of their value, it must be acknowledged that the zeal or ambition which prompted it have produced some interesting results. And these results confirm some theories of population and of influences particularly affecting the

Colony during the last decade.

The value, however, of the only two Censuses taken of the Cape Colony is seriously impaired by their isolation. They are connected by no system of registration. It may appear incredible to the administration of Trinidad or Tasmania that the great and flourishing community of South Africa, the Colony which now attracts the chief share of Imperial interest, is without the machinery which elsewhere is considered indispensable to the ordinary operations of Government. But it is so. The fluctuations of wool and the vagaries of the irrepressible savage appear to absolve the energies of both Government and people, and we jog on, contented with a

Vol. XV .- July, 1877.

lightning glimpse of remote consequences which we might yearly study and provide against. Kismet! the bucolic mind cannot readily assimilate abstract considerations, and we can only hope for a statis-

tical administration in the distant future.

The Under-Colonial Secretary (for the indefatigable and versatile genius of Captain Mills here finds a new and unexpected development) opens his report with a pathetic picture of the difficulties which he had to contend against. Added to defective organization were the obstructiveness of the civilized and the apprehended opposition of the uncivilized members of our community. That the measures taken for enumeration were defective we can easily believe. No expert was employed, and the Pallas which sprang from the brain of the local Zeus possibly had many a fault in her panoply. also fully expect that the worthy son of the soil regarded with dark suspicion this unhallowed intrusion into the sacred mysteries of his flocks and his family, and therefore accept the statement that in a considerable number of instances the fear of taxation or other prejudice has influenced the returns of the rural white population; but receive unexpected comfort in the assurance that "the distinctively native population, who dwell together in masses on the border, received the measure with unexpected docility and intelligent com-prehension of its object." The work of enumeration was simply and apparently efficiently planned and carried out. In towns, personal schedules were left with each householder; in the country, field-cornets and their myrmidons and other enumerators urged their wild career provided with books of schedules in which the necessary particulars were recorded. Such a system of enumeration, although it has the defect of extending over many days, cannot be avoided in an immense and thinly peopled country. There appears to have been a want of good men, who commanded their own prices. Drought also had its influence in a large area, and the result was a great expense. The actual numbering of the people cost £10,854, but this sum is relatively small to the population, and the dolorous thanksgiving of many an enumerator on concluding his task testified to its severity.

All have heard of the admirable definition of a Census—that it is the inventory of a people. The main strength of a community is the number of living souls it contains. Related to this is its power of sustenance and production; and lastly the wealth it has conse-

quently accumulated.

The third subject has not yet received and probably will not for some time receive adequate treatment. A Census at present, therefore may be taken to deal with only the strength of a population, and its more direct means of living. The Under-Colonial Secretary's Report, which appears to be a faithful summary of the subsequent tables, will guide us in our examination of what the Cape Colony is and promises to be; and we shall borrow very freely from the tables which crowd it in every part.

The new-comer in Cape Town is struck with the motley nature of the population. The realism of Cheapside and the romance of Bagdad mingle in the busy streets with more unsavoury elements distinctively African. And this diversity is typical. In no other British Colony is there such a varied group of nationalities, among which are perhaps the remains of some of the oldest existing races. Of the 720,984 souls in this Colony on the 7th March, 1875, not less than 484,201 were of the coloured classes, who are thus to the white as two to one within the Colony. Taking members of the Dutch Reformed and Lutheran communities as of such an origin, we arrive roughly at the fact that about 150,000 souls, or nearly five-eighths of the white population, is of Dutch or French descent. A population of some 80,000 then represents the contribution with its increase from the mother-country and the rest of the world to our population during seventy years—a contribution far less than that made to the slowly growing colony of Tasmania during an equal

period.

The coloured population is divided in the Report into five groups. The first embraces the "Malay," and is rightly described as owing its distinctive character rather to the possession of a common faith antagonistic to that of the surrounding people than to any national characteristic. We suspect that many an Arab and Malagasy, as well as oleaginous proselyte from the East Coast, is here confounded with the descendant of the Javanese or West African. The indigenous population falls into two groups. The oldest races hold the place of honour, under the wide signification of the word Hottentot. Among these we find 231 male and 190 female "Bushmen" returned-fewer than expected, and Hottentots, Hill Damaras, Griquas, and others swell the number of the class to 98,561 souls. But we cannot accept this number as correct, for many of doubtful origin must have owed their classification under this designation to a prevailing characteristic in feature or of figure. The true Hottentot has nearly disappeared. Fritsch estimates their number in the early days of European settlement at 150,000. According to the Census of 1865 this population had sunk to 81,598, and the process of extermination has not ceased in the interval. So far as race is concerned, therefore, the number now shown is open to question.

In striking contrast to the decline of the once powerful Koi-Koin, is the record of the fertile and progressive group of the Bantu peoples. An internal pressure which has only ceased within the memory of the present generation has urged successive waves of conquering or fugitive hordes upon the southern extremity of the continent. An advance, at first unchecked, brought the Kafir races into contact with and under the influence of a more imaginative and subjective race. From the Hottentot they absorbed much. Alliances were frequent and were regarded with pleasure, and the influence of the older race can be traced in the social habits and scanty mythology

of the invading tribes.

The historical traditions of the Xosa point back to a considerable antiquity, and it is not unreasonable to think that the future student of African history may be able to connect their movement southwards with the traditional invasion by a kindred race of the fair lake regions visited by Burton and Speke. The languages of Mtese and of Kreli are intimately related, and the genealogy of each rises from an early date in the sixteenth century. In this Colony two great and hostile branches represent the family: the Tembu and Xosa clans on the one hand; and, on the other, the Fetcani, whom we more familiarly know as Fingoes-a word associated in its meaning by these people with a bitter and enduring recollection of their days of serfdom, when as the "dogs" or "slaves" of the Xosa clans they appealed to us for that protection which has given them liberty and a settlement, and accumulated wealth within this Colony. How greatly they have flourished is evident in their numbers, 73,506,\* more than a third of the remaining branch which, including Basuto and other Betchuana, counted 214,133 souls.

Lastly appears the class which, now nearly confined to the western districts of the Colony is destined to play an important part in our future development. The mixed race is already predominant in two divisions of the west—and from the very facts of its origin must spread throughout the land with fatal certainty. No less than 87,184 souls (among whom are, however, a small number of foreign immigrants) are placed in this class, a greater population than that which has settled and multiplied on our shores since they

became a British Possession.

When considering the increase of our population we must bear in mind that the fact the Colony is growing in a twofold manner. We at once increase within our own borders, and extend our territories by the acquisition of those of our neighbours. Thus in 1865 we numbered 466,381 souls. But we have since incorporated British Kaffraria. That once recalcitrant and always demonstrative province contained on the 31st December, 1864, 86,201 souls, of whom 8,183 were white. The same area has now a population of 122,154, of whom 12,785 are white, the increase on the whole being more than forty-one per cent., or greater than the rate in Victoria. Looking to the Colony generally, we may either find the increase since 1865 on the population as then ascertained, adding the approximate numbers in British Kaffraria, or find the increase on the former area of the Colony, which is better still, by subtracting the people in the present divisions of King William's Town and East London from the numbers in 1875, and we have within the present limits of the Colony an increase of 47,008 white and 91,394 coloured, or ratios of 25.86 and 29.03 per cent respectively, and on the former area an increase of 42,406 white, or

<sup>\*</sup> When received into the Colony by Sir Benjamin D'Urban in 1835, the Fingocs numbered 16,800 souls.

23'35 per cent., and of 60,043 coloured, or 19'07 per cent. The influence of the immense increase of natives in what was once British Kaffraria is at once seen, for it raises the ratio of increase of the coloured on the present area ten per cent. above that on the old.

Bearing in mind that there has been emigration of Tembus from the Tambookie Location and of Fingoes from Fort Beaufort, Victoria East, and Peddie; and that numbers of marauding Aborigines in Victoria West and Fraserburg have been exterminated by war or the progress of settlement, we may trace the double tide of migra-

tion which has peopled the waste lands of the Colony.

Dividing the country into the seven electoral provinces-admirable geographical provinces by the way-proposed by Act 18 of 1874, we find that the results of the Census given in the report tell us that the migration of colonists originates chiefly in the older settlements on the coast, and has, within our borders, been directed either to the central highlands or to the extreme east. In a broad zone stretching from the Cape between the northern and north-western boundaries of Caledon, Swellendam, George, Uitenhage, Middelburg, and Colesberg, and the sea and the eastern limits of Victoria, Cradock, and Albert, the white population has generally increased only from 14.66 to 18.94 per cent. in the decade. West of this zone there is evidence of a great influx of settlers particularly observable in Victoria, Fraserburg, and Beaufort, while the increase in the eastern divisions reaches the remarkable ratio of 76.00 per cent. It must, however, be understood that the sketch here given of our progress is very general. Numberless gradations soften the outline which we have marked out. As regards the coloured, they have been everywhere beaten in proportional increase except in the "tract sketching along the coast from the western boundaries of Caledon and Robertson to the confines of Humansdorp and Uitenhage," a tract in which it is significant that there has been a partial decay of material wealth and production.

In the fluctuation of population here traced we see the cause of the rapid extension of the colonial population in comparison with the limited development of our material resources. The knowledge and the capital of the colonist are alike inadequate to the proper handling of the property which with either would yield an abundant return. The limit of production with the rude means used is speedily reached, and then a large surplus population, begotten with the reckless improvidence of ignorance is driven forth to found new homes. Confident of fresh fields and pastures new, the wanderer penetrates into the boundless plains of Victoria or the craggy dells of Wodehouse, and proceeds to perpetuate the system he learned on the paternal acres, and so new swarms of irrepressible seekers for lands and homes are arising whose needs or whose deeds will tax

to the utmost the wisdom of future administrators.

The colonists are scattered over an area of nearly 200,000 square

miles. The Surveyor-General says 199,050, but is contradicted by Keith Johnstone who, on the authority of a rude German savant, "prefers" to state it at 195,883 square miles. In either case the density is scanty indeed. On five square iniles on the general area we have only eighteen persons. In Belgium, on the same area 2,300 souls live and have a comfortable being! And our poverty becomes more fearful if we deduct people living in towns, for then we find only fourteen to five square miles. These figures refer to the whole population. Looking to the white only, we have generally only six, or, excluding urban, not quite four persons to five square miles!

The largest proportions are of course found either in the oldest settlements or where a native population predominates. Thus in the Cape Division we have 42.56 white and 36.83 coloured, and in King William's Town 5.06 white and 54.82 coloured to the square mile. The total densities in the Paarl and Stellenbosch are 17.73 and 24.85 to the square mile respectively, and may probably be the limit of the proportion possible at present in agricultural areas in the colony—a limit greatly to be reduced in pastoral districts.

In the immense area, embracing 135,451 square miles, stretching from the Atlantic Ocean to the eastern border of Hope Town, Richmond, and Graaff-Reinet, north of the great range which runs parallel with the southern coast there is little more than one person to the square mile. Thence eastwards the density increases to 378 in the North-Eastern and 1944 in the Eastern Electoral Provinces.

In Calvinia it appears that the haughty colonist may boast of an area of nine square miles upon which he will not behold a neighbour's face, nor are his friends in Namaqualand and Fraserburg to be much less envied as Crusoes in theory, for of course, men do not live in

the centre of solitary areas.

The population of the Colony lived in 55,212 houses and 76,022 huts and tents. The enormous number of "uninhabited edifices" shown in the tables is probably owing to the inclusion of any "built structure" in the designation "edifice," which is unfortunate, as a wrong impression is left on the mind of the inquiring and wonderstricken reader, who has just been deploring exorbitant rent and scanty accommodation. The number of rooms in each house was required to be returned, but with imperfect success, for 10,110 houses were undescribed. These being mostly in the rural districts may be assumed to be small. Nearly one-seventh of the dwellings which can be classified contain more than six rooms; about 3,000 contain six rooms, and upwards of 9,000 one room only. Besides, we had 1,642 white and thirty-one other people on shipboard; and housed in tents, wagons or bivouacking in the open, 4,666 persons, of whom 2,736 were white. We were in 1875 building 526 houses. About a year before, our friends in New Zealand were building 532, and their population was nearly 300,000.

In cities and towns having a population of 500 and upwards, we are told that there are 19,857 inhabited buildings and 2,873 huts and tents. The total population of such towns is 142,041 souls, which gives an average of rather more than six persons to each dwelling. In the Colony generally the average is, excluding tents, 5:53, which rises in the Cape Division to 7:15, in Fraserburg to 49:0, and Victoria West to 9:08. In the first case there is an admitted scantiness of accommodation. In explanation of the "hartebeest we have only to recall the swarming population of the "hartebeest whouse" or mud cabin in our newly settled districts. On comparison with other countries we find people more comfortably housed in New Zealand and Victoria, where the average is nearly 4:9 inmates to the dwelling; but not as crowded as in Ceylon where there are 6:18 persons in a house.

We find that to every hundred dwellings there were eighty-seven families (by a curious misprint the proportion is put as 0.87 families to 100 dwellings) in England and Wales, 100 houses contained 119 families, and in Ceylon 127 families. The Under-Colonial Secretary thinks that the large number of dwellings in proportion to the number of families is due to polygamy; for a single family of our sable fellow-subjects may occupy two or more huts in proportion to

the dignity of its head, and the number of his spouses.

Before proceeding to notice the succeeding and important tables, it is well to glance generally at the distinction made between the urban and rural population of the Colony. All dwelling in cities, towns, villages, and "certain Institutions," such we understand as Lovedale, the mines in Namaqualand, &c., are classed under the former; and all actually engaged on the soil under the latter term. The distinction is, if accurately carried out, correctly drawn and will illustrate some social conditions. We had of 236,783 whites living in the Colony, 85,374 classed as urban, and of 484,201 coloured, 72,038 were so classified. In the case of whites the proportion is about three-eighths of the total, in the coloured nearly one-seventh; in England the urban population is more than one-half of her people, and but one-tenth of the swarming millions of Russia are congregated in towns.

We may then boast that, if we have no manufactures, our trade is great enough to support a large proportion of our people in the business of collecting or distributing products. At the same time the centres of our general and local commerce are not individually large. The metropolis of the Colony contains but 33,239 souls, of whom 18,973 were white. But in the pleasant suburbs which stretch on either side of Cape Town were not less than 12,000 souls, including 5,407 coloured — a number which would have been greater but for migration to the Diamond-fields. The city of Port Elizabeth contained 13,049 inhabitants, of whom 8,728 were white; Graham's Town, fallen from its ancient splendour, held 6,903 inhabitants, of whom only 1,548 were coloured; Graaff-Reinet

boasted of 4,562 souls; and King William's Town, treads closely on the heels of the "Gem" with 4,553 inhabitants, among whom, however, is counted the considerable garrison; Worcester had 3,788; Paarl 5,760; Stellenbosch 3,173; Uitenhage 3,693; and Queen's Town 2,320 inhabitants. These may be termed our representative towns, for they are the chief seats of trade and political and social influence, and the arts—such as we possess—in these find their

principal expression.

Compared with the urban population ten years ago, we found that many of our towns have increased rapidly in size. Cape Town has nearly 5,000 more inhabitants, and its suburbs 2,667 more; Malmesbury has gained fifty per cent.; Clanwilliam is doubled; Ceres has grown in population from 781 to 1,234 souls; Robertson has been surpassed by Montagu by 72 souls; Oudtshoorn has risen from 1,145 to 1,837; Port Elizabeth contains 2,276 more than in 1865; Somerset East now holds 2,231 inhabitants against 1,822 ten years ago; Middelburg has nearly doubled its population, as have Aliwal North and Queen's Town very nearly.

On the other hand Bredasdorp, Swellendam, George, and, strange to say, Bedford, Cradock, Hope Town, and Colesberg, have declined. Graham's Town also has suffered apparently a striking loss of population. In the last mentioned cases it is certain that the Diamond-fields have drawn away a great number chiefly of the lower classes, who might perhaps well have been spared, for their

absence has not effected the prosperity of these communities.

## The Pulpit-in Self-Vindication.

#### A LAY-SERMON.

Under the signature "M." a contributor to the Cape Monthly for April, in an article professing to form an estimate of the value of my present services, compared with those which the Press renders, concludes with a judgment unmistakably depreciatory. He admits that time has been when I was a power. Well, that is something. What he has been is a thought that the old man in his senility dwells upon with satisfaction, and why may not I? It is admitted that I am an old public servant,—more even, a benefactor to peoples of olden times, honourable and honoured then, but now? Well, it is not pleasant for me to say what, and that all the more, that I do not acquiesce in the judgment pronounced upon my present character and claim to respect.

Since those times when it is acknowledged that I had a function, and that it was exercised for good, how has irreverence for age gained ground! Let my young "rival," the Press, give heed to this.

I wish no patronizing advocacy to be used on my behoof, or in my support. I resent everything of the kind. Even so do I resist

every assailant who comes up with flippant bluster to batter, as he may think, my frail sides in. Let me cough off the phlegm, which after so lengthened a service I may not be ashamed of, and my voice shall be heard in no muffled or uncertain sound, in self-vindication, and which, moreover, shall be duly emphasized by the action of a hand which paralysis has in no degree made tremulous.

I suppose it is the common lot of all who have served their day and generation as benefactors, that those upon whom they have conferred the largest favours are just they who are least mindful of the benefits received. Grant the Press all that is claimed for it, I

begrudge it no honour, but does it owe the Pulpit nothing?

Is my egotism offensive, or may I be charged with overweening notions of self-importance, when I say that to bring forward the Press as a "rival" to me, shows a scant measure of gratitude, and less still of generous feeling or temper. What influence has contributed more to the development of the power of the Press than the Pulpit: or by whom is it more largely employed? The Press my "rival"? No.

Where there is no Pulpit, only a so-called priesthood, to say or perform mass, or to read prayers, or to hear confession and grant absolution, or to perform ceremonies regarded as essential by the religious, but no preaching—as, say in Spain, or France: How fares it with the Press! Will its most ardent advocates boast of its

freedom, its privileges, or its exemplary character there?

It is understood that I should be methodical, and even in my laysermon it is my wish to maintain my character, but the form of my assailant's attack lays change of position, and a good deal of facing about in various directions upon me, which may be all very well for the Press in its youthful energy, lightness, and versatility, but to the staid age, nervous and intellectual exhaustion of a Pulpit that has more than served its time, is not a little inconvenient. Still I do

not say "pity the sorrows, &c."

A lesson which in its earlier days was wont to be set to the Pulpit, when it had yet some capacity for acquiring and for using knowledge, tells of a rustic, somewhat stupid, though kind-hearted withal, who, seeing a reptile benumbed, and all but dead from cold, took it up and placed it in his bosom. The warmth gradually revived its dormant energies, and its restored vigour was turned to this account: it bit the man who had nursed it into life. If the Press have become a "rival" to the Pulpit, it ill requites the benefits which it has received. The Press had no kinder foster-parent than the Pulpit, and that it has seen its favourite foster-child become all that it is the Pulpit is noways envious thereat.

Throughout its whole history the Pulpit has largely availed itself of the co-operation of the Press—and never more so than at the present hour. It cherishes no temper of jealousy whatever. To this declaration I stand—misunderstand or misrepresent me who may.

That a case of Peter the Hermit could not be reproduced in this

our day is adduced as a proof of my decrepitude. Thanks to my influence it could not. Shame were it if that for over three hundred years I had been instructing ignorance, reforming the morals of the people, infusing correct sentiments, and forming public opinion, yea, awaking a public conscience and giving tone thereto, calling into exercise, and making constant appeals to the reason and intellectual faculties of men, with no better result than this, that whole nations should be carried away, by a spirit—an impulse rather—an unreasoning impulse of ignorant fanaticism. The phrenzy of madness, complete or partial, is not an illustration of my power that I would care at any time to use. Work like that of Peter the Hermit is not that in which I have any ambition to obtain distinction: it

was not for such that I received my commission.

"In charity with all men." Other disposition than this would be ill in keeping with the office of the Pulpit, and the object for which it exists. I would not misread my indictment. The effect of that would be to put the character of my-assailant. (That I should have a pretty good command of words is expected of me; the term here used does not satisfy me quite; but after casting about a good deal, no one more to my mind comes readily up. I could not honestly say friendly critic, for the uniform pulse of the article in which my present character is so freely canvassed, does not beat with the warmth of a friendly heart at all: neither could I say impartial judge, for the elements of a judicial mind are not there. It does not become me to use undignified phraseology, but to be well understood is a consideration to which through all my better days I have ever attached importance. Then bear with me in thus honestly stating the impression which the tone and temper of the article in question produces in my mind, that it is the work of one to whom having a rap at the Pulpit is in no ways disagreeable).

But from a parenthesis almost as lengthy as that of the doctrine of the augment in an Eton Greek Grammar, how am I to get back to my theme again—assailant? I had said, my assailant's character would be placed under a prejudice by any misreading of his indictment. Here is a reading. Four well-known names are given, "and others in our own day, have irradiated the fading lustre of the Pulpit

with evidences of genius and piety."

In such incidental statements as this the pulse of the writer is felt without mistake. Evidences of genius and piety in the Pulpit have faded in our day, even when contrasted with the days of Chalmers. If this be not the reading of this extract and its context,

then I must to school again-I know it not.

If this be the reading then, under a sense of positive wrong done me, I gather up all the vigour and strength left me in my old age, to deny that it is as is here said. The Pulpit has not less of either genius or piety than it had in days gone by. Its influence and power have not been weakened. Nay, they have mightily increased. In all sobriety of judgment and competent knowledge I advance

the statement that in that one city where Chalmers "drew enthusiastic crowds," there are in this our day fifty pulpits, each and all exercising an influence for good, equal, and more than equal to what that of St. John's ever did when occupied by Chalmers. They minister to higher intelligence, they cultivate more benevolent feeling, and incite to more beneficent action, and they call out a liberality greater manifold. No, the lustre of the Pulpit has not faded.

What was the Pulpit when Chalmers first entered it? His own pulpit at Kilmany, so long as he occupied it in setting forth the claims, advantages, and pleasures of science, social, physical, and political; and in addition enforcing "moral obligations and practical duties," what was it? Not the thing of power and influence and attraction which it became when Chalmers came to understand the truth of God, and brought that into his pulpit. No one who knows aught of his history needs to be told this, and no one who knows aught of what the Pulpit as a whole was throughout Scotland then, will speak of its lustre being faded now. He would be an extraordinary preacher indeed who would stand out in such marked distinction among his Pulpit contemporaries in this our day as Chalmers did among those of his. This consideration does not support the assertion regarding the decadence of the Pulpit.

Of the Press I have not a depreciatory word to say. I hail its prosperity and enlarged influence with real satisfaction. Its relation to the Pulpit is that of a most efficient collaborator, not a "rival."

That between intellectual and literary freedom and activity, and a vigorous Pulpit, there is a close and friendly relation is a thesis which I have heard maintained by more convincing arguments than any that are used by the writer against whose ill-founded conclu-

sions I here try to put myself right.

The lay-sermons preached day by day by the leading journals I do not accept, and would have no man to accept, in lieu of my own proper sermons. But it shall be my satisfaction to know that men profit and reap improvement from both. The more they are improved in mind and heart by these lay-sermons, the more will I be enabled and encouraged to advance, and rise higher in my own special and higher sphere of ministration. The time when knowledge shall be increased it is my desire to see hastened.

The establishment of Chambers' Journal marks an important epoch in the history of the Press. Since then it has grown to be a power hardly to be overestimated. Before that time the Press could not with propriety have been described as popular—a thing embracing the people, addressing itself to the people, and suited to the means of the people. Up till then it had been more the thing of a class in

every way.

I appeal to those who know: let them say whether from that time the Pulpit has suffered decadence, or its lustre of genius and piety have faded. Shortly thereafter began the memorable ten years' conflict in Scotland, and that developed Pulpit power as it had seldom before been.

Chalmers had then passed his zenith, but there were others, many others, ministering to as large congregations as ever he statedly ministered to, and now in this our day these are multiplied manifold. Wide as has been in that time the expansion of the Press, the Pulpit has not been outstripped by it. If numbers be at all a proper exponent thereof, the Metropolitan Tabernacle, London, exhibits a Pulpit power and influence beyond whatever either Wesley or Chalmers or Robertson could show. A congregation like unto that which assembles around the pulpit there none of them ever had. True, it may be said Spurgeon is an exceptional preacher, but so were they.

Nor is it numbers alone, or quantity upon which I reckon. Not with the object of parade, nor with the disposition of boasting, but with assured moral conviction of what is, and with all the sobriety yet full confidence of knowledge - self-knowledge, say-in vindicating my character against unfounded aspersion, I challenge consideration of the quality of my teaching. In no period of my history could I do so with greater confidence than in this our own day. For comparison with names of any period of the past, I am not ashamed to give the names of living men, J. C. Vaughan, Master of the Temple; Dale, of Birmingham; M'Laren, of Manchester; Ker of Glasgow. These are men that address themselves to cultured mind -Christianized cultured mind-the highest form of intelligence, and such is their acceptability, and the appreciation of their ministrations, that the Press counts it an honour to be made the channel through which the stream of their sanctified genius may flow to bless and benefit untold thousands, beyond what could possibly be reached by the Pulpit alone.

For this, surely, I am not to be jealous of the Press; this is not rivalry. Nay, I heartily rejoice in having so efficient a means of indefinitely extending and perpetuating my influence for good. Due honour to the Press, while I assert my claim to the original honour. It is the Pulpit upon which these men's eyes are fixed, when the in-

spiration of sacred genius quickens all their powers.

I claim to be credited with benevolence, large benevolence of heart. To that feeling it affords something more than satisfaction to take note of the avidity with which the Press takes up and uses so well the material prepared for and provided by me. The Press itself thus does homage spontaneously to the Pulpit. Witness Dr. J. C. Vaughan's sermons, "The Chapter of Faith," which for attractions to many readers in the columns of "The Day of Rest," which, whether its cartoons and pictoral illustrations, or its literary matter be taken as criteria of excellence, is not surpassed by any of the religious serials of the day.

In this there is not only commercial tact: there is real well-doing and wisdom as well. To the reading masses these sermons of so high an order are thus presented, and tens of thousands are instructed and edified by them, who could not by any possibility hear them preached. The preacher's voice is thus made to reach to the ends of the earth. This is not rivalry. I give my hand in truest friendship to the Press. It enlarges my power and influence for good incalculably. Are these sermons "repulsive to the lay mind?" Assuredly

not, else their publication would be discontinued.

"The modern Pulpit resounds with theological subtleties, and dogmas, doctrines and definitions repulsive to the lay mind. Our moral obligations and practical duties are little dwelt on, but the dry bones of theology are mumbled to an overpowering extent. In this respect the Pulpit seems fossilized, and is rapidly losing its power. Barren homilies, uncontested truisms, detected fallacies, and bold assertions, are speedily alienating the intelligence of the age." Here is enough surely to make one in my position look grave. There are poisons, however, which may be administered in too large doses, and the drug itself thus becomes its own antidote. Of a like character is this.

The successive counts of the indictment are rolled, tumbled out rather, with such extravagance of diction that the reflecting mind refuses of itself to admit the charge. Though startled it may be at first, a little reflection, and falling back upon what personal knowledge of the subject may be possessed, even though that be little, shortly removes all alarm, and restores confidence in that which was

in such way assailed.

To the writer I offer my unfeigned commisseration. I cannot do less. He is most unfortunate. I would do him this justice, and say that I cannot entertain the thought that he comes into court with such charges against the Pulpit upon mere hearsay evidence. It must be what he hath himself found the Pulpit to be that he puts down, enters upon the record in such scathing accusation. And if so, where is the man so unfortunate in his relation to the Pulpit! I would give him the friendly counsel to try some other. By change he can

scarcely be a loser.

Were the genius of Augustine, the simplicity of Wesley, or the irresistible earnestness of Chalmers, again to irradiate the murky atmosphere in which I am now left, and "moral obligations and practical duties dwelt upon, then I might yet command respect. But now—who that knows ought of the subject requires to be told that it was these doctrines, dogmas, and theological subtleties, all so offensive, that the genius of Augustine found exercise upon? It is for the light in which he set these, and his sturdy championship of them, as well as for his masterly setting up of the "dry bones of theology," that his name has come down to us with high honour. And they must know little of Wesley, or of those to whom he gave his name, who suppose that the secret of his power lay in the eloquent enforcing of moral obligations and practical duties. Neither was such the theme of Chalmers, when he fired men's hearts with a zeal burning as his own.

"No man of any education or intellectual attainments is now-a-days ignorant of the doubts freely thrown on the existence of the Deity, &c." If this be really how matters stand, how confirmatory is it of what I have at times sought to convince men of! The Press my ally in this also! In my way of apprehending things, it has often seemed to me as if the discoveries of science so-called, and the theories of such men as Darwin and Huxley left, if followed up to their legitimate consequences, no place for Deity in the universe, neither anything for Him to do. As occasion offered, I have not failed to give expression to this view. I honestly hold it. And what have I had for this freedom of speech?

I have been told that I have spoken under groundless alarm—one of the failings of my incipient dotage, of course,—or with a dash more of contempt—that I vilify and misrepresent systems and sciences which I do not and cannot understand. Bigoted, narrow-minded—all that is very easily said, and on whose lips are such charges against me more constantly found than of those who most loudly complain

of my illiberality, intolerance.

How am I to decide? Age brings with it timidity and self-distrust. The leaders of these schools of so-called doubters or sceptics stoutly deny that my conclusions regarding them, and the views which they profess to hold, are warranted. Personally they conceive of the Deity with all reverence, have no disposition to exclude Him from the world, nor do their systems, rightly understood, do so. Am I not to believe these declarations? Are the men not honest? If there be men of any note at all, who freely throw doubt upon the existence of the Deity, I had thought the above names among the best known of that school; but when they refuse to accept the position I may not constrain them to admit what they say they do not hold. It were presumption in me to press my inferences and conclusions upon them, or to accuse them of fallacious reasoning.

Paine stands first in a list of names following the sentence quoted. Do men of education and intellectual attainments now-a-days take to Paine for instruction? If so, intellectual tastes have greatly changed since my younger days. Such men were not in the habit then of fouling their hands with Holywell-street literature.

Paine himself, methinks, would, in his vainest mood, have felt not a little surprised had he been permitted to look down into the future and read his name bracketed with that of Gibbon, an English classic, or of Mill a dialectician of no mean order; but, above all, of Colenso,

a quondam bishop of the English Church.

Straus and Renan. I am myself sceptical as to the positive existence of the men who bear these names. My rule of judging in such cases is just to make of men what they make of others,—a rule of more extensive application than some may think. If such men there be, can they cast doubt on anything? Can they themselves believe what they are credited with having written? A myth is not a proper object of faith to any sane mind.

To one of my protracted service how very moth-like has been the day of all such men! How many successions of them have I seen! I am almost disposed to confess to the feeling that my own oversensitiveness and readily-excited alarm, and what action I have taken thereupon, has had not a little to do in prolonging the existence of such men and making them known. Left to themselves, and their works to their own intrinsic worth, how few would ever have heard of them? Have I been over-wise on this and other such-like matters?

The commission with which the Pulpit was in its first days honoured was widely different in its nature from all the foregoing. The words of injunction are, "Feed the Church of God which He hath purchased with His own blood;" and to come down from this high calling is to neglect or to abandon the primary and principal duty of my office. That I should minister to men who freely doubt the existence of the Deity was not contemplated. Such men there were none in my pristine days. Nor are there such now, save where, through my influence chiefly, men have been incited to inquiry; mind has freedom of exercise, yea, stimulus to exertion, and no hindrance to expression.

Men sometimes do abuse their most notable privileges, and that some erratic minds, vain of notoriety, should float to the surface

under such favourable conditions is not matter of surprise.

"Gods many and Lords many" describes what men had and were, when I was first charged to exercise my functions for their good. But "no God" is a state of intellectual blindness, which the high culture of Athens would have been ashamed of, and which even the barbarous people among whom Paul was cast in shipwreck were above. To have heard our common expression "it rains," would have sounded impiety in the ears of the ancient Greek. "He rains"—i.e. Deus—for He alone can cause rain. The thought and feeling which underlie this is reverential and God-honouring.

It was to such men that I was commissioned to address myself. The character of the God whom they ignorantly worshipped it was mine to declare. Such commission proceeds upon the principle that "the invisible things of Him from the creation of the world are clearly seen, being understood by the things that are made, even His eternal power and Godhead, so that men are without creuse." If this fail to work conviction, neither would men believe though one

rose from the dead.

Blame the Pulpit for not meeting and removing the doubts of the sceptic! No, neither Pulpit nor Press can make man what he is not, endow him with faculties other than God hath created him with. Pride of understanding, not less than perversity of heart, blinds him to truth.

Since I, the Pulpit, have failed, am failing so lamentably in what these free-doubters profess to expect of me, let the younger, more vigorous, the all so-successful Press step forward and gain a triumph in this field. My chaplet of bays shall be the first to grace the brow that hath supplied my lack of service, made up for my want of success. From such effective lay-sermons I, perchance, may myself be taught a lesson. Envious of a success of outstripping mine I shall not be.

I give men a reason for the faith that is in them, that is, bid men believe upon my authority! No, assuredly, that is not my function. It is mine to urge each man to know, as the result of his own educating into the province and standing of faith, the reason thereof. This goes to make a man of him, not a mere sloven believer, believing just as he is told to. Let every man be fully persuaded in his own mind, and like those well commended ones at Berea, search the Scriptures to know whether what I teach be according to the truth that is in them.

"I, I only, am left," said the old prophet, in dire heart despondency. Our now prophets of doubt are not found with language like this on their lips. They transfer their own interests and feelings to undefined multitudes, and speak in their name without authority. Like the Ephesian craftsman, all Asia and the world worship their

Diana. "Great is Diana of the Esphesians!"

This is the extravagance of ignorance, where heated zeal makes up for sobriety of mind and sound information. But unlike genuine worth and real religion, it, somehow, has a most irrepressible proneness to float itself forward to a front position. Self-distrust breeds doubts, not of the existence of Deity, but often of the relation to God, which while its influence lasts, makes deed the many an honest heart. But this is a feature of character not at all common among that class of doubters with which I am now concerned. They are a noisy not a numerous class, men of glib speech rather than profound thought. They speak of doubts the real ground of which many of them do not understand.

The Apostle exhorts the believers to whom he writes to be always ready to give a reason of their faith and hope. Were I to challenge these doubters to give a reason of their doubts it would in most cases run down to the veriest credulity. They accept upon authority what certain men say, upon a question which they do not and cannot think out for themselves, and they reject with ridicule what they call my mumbling. And this is to exercise independent

judgment!

Well has it been said of such, "They should remember that those to whom doubt and inquiry are real and stern are not inclined to sing about them, till they can sing pæans of triumph over them." There are few men who freely doubt the existence of Deity. Man is constituted with the impress of Deity deep in the very essence of his nature.

THE OLD PULPIT.

## Hides.

Blow now thy wildest blast, O wind!

Uproot the strong-limbed trees;
And rock within thine arms the lab'ring seas.
Fall down thou blinding rain!

Thou canst not soothe my pain,
Nor calm the anguish of this storm-toss'd mind.
Which e'en in thine unrest no rest can find,

Of hope and happiness bereft,
A bark, all rudderless, I ride
Alone, on life's tempestuous tide.
The horizon glimmers far and wide!
O'erhead a great, dark cloud doth fall,
Like a grim, death-enshrouding pall,
Casting black night-shades over all.
While, lonely still, I onward drift.

The shadows deepen all around!
The storm-fiend shrieks with laughter loud;
Darkness enwraps me like a shroud.
No gleam of light appears!
Ha! ha! I laugh—I own no fears.
Lo! now the lurid lightning flies,
Now crashing thunder cleaves the skies,
And to its angry war replies
The deep with low and muttering sound.

Though loudest tempests o'er me sweep,
All slight and helpless though I lie,
Betwixt the relentless sea and sky,
Their utmost tyranny I defy.
Beat howling waves against my bark!
Pour, molten sky, thy waters dark
Upon me; ye cannot sink me in the deep;
Ye do but cool these eyes which have forgot to weep;
And calm upon the angry ocean's breast I sleep.

Ah life! how little dost thou know
Of joy-how brief thy joys!
They are but childish toys,
Which thou dost give and take away again
When treasured most. How vast the pain—
That with a lavish hand thou dost bestow;
Thou seekest but to add new woe to woe!

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Then let thy wildest woe-storms o'er me roll!

I will not yield me to the blast!
I know its power cannot last;
And from my breast all care I cast.
One reigns above whose calm command,
No raging tempest can withstand;
And though I cannot sight the land,
Yet thy fell power, O death! He can control,
And from thy grasp He will release my soul.

M.

## Elephants and Anab Yonses.

By Major Erskine.

Among the many matters in which we are behind other portions of the Empire in enterprise, there is none which has surprised me more than the neglect to utilize our elephants. I need hardly say that if elephants had existed in any other British colony they would long since have been turned to account, and the more so as our native population is so eminently adapted for catching and taming them, whilst labour is scarce and dear. South African are the largest and finest of all elephants, as well as the most numerous, whilst the forests in and around which they abound are well adapted for making

"corals" (kraals).

For many years past I have urged on the Natal Government the advantage which would be derived there from the use of elephants, but I was always met by the assertion that these elephants were untamable. This fallacy was the more strange since elephants had frequently been tamed here, but they had always come to grief in some way before they arrived at maturity, generally by being gored by oxen. It was in vain that I pointed this out, and argued that Hannibal used no elephants but those of Africa, as is shown by the representations of them in sculptures with their low foreheads and huge ears, in contradistinction to those of the Asiatic elephants, which were also properly represented in other sculptures; besides which it was impossible that Hannibal could have procured Asiatic elephants in such numbers as he had in his army. At last African elephants were procured by the Zoological Gardens authorities in London, and were found to be quite as tame and sagacious as the Asiatic; and last year there were no others there—the two they previously had (the Asiatic elephant having died) carrying children, kneeling, &c., just as the others did.

Previous to this, Sir G. Grey, who quite agreed with me, offered to join the Natal Government in sending to India for two elephants to catch and tame ours, and I had every prospect of inducing the Government and Council to find the small sum required for the purpose, when Sir G. Grey left. About the same time the great monetary crisis occurred, and the retrenchment consequent upon it caused me to abandon all hopes of a vote.

I was happy to hear that this Government had been making inquiries at Ceylon as to the cost, &c., of elephants there, with

reference to this subject.

It is equally surprising that neither this Government nor that of Natal should have imported elephants from India for their public works, and that contractors and transport riders should have been equally blind to their own interests. No public works are carried on in India without elephants, although the labour both of men and cattle is so much cheaper there. No forest is ever attempted to be worked without elephants, although the nature of those forests does not so absolutely require their use as the forests in Natal (which are always in kloofs) and here. As a mercantile speculation alone, the importation of elephants would be most profitable; and for military purposes they would be invaluable, as, being chiefly a mountain animal, they penetrate where no horse or cattle could be taken. An elephant will march twenty miles a day with a burden of 15 cwt, and will carry two tons for short distances.

A few elephants attached to the mounted police would prove less expensive and incalculably more efficient for the transport of guns than horses or oxen, which indeed are of little use for artillery in mountain warfare or in bush fighting, as was found at the late operations

against Langalibalele and Secocoeni.

The cost of an average baggage elephant in India is, or was when I was there, from £ 100 to £ 150, and I suppose a good catching elephant would be worth more, say £200; and I should think that by sending the elephants down to Natal in a coolie ship whence they could march up in a few days, the passage would not cost more than £50 each. I think, therefore, that £1,000 should suffice for the introduction of two elephants, and I am very sure that apart from the invaluable benefit which the Government and the people would derive from taming our own elephants, the Indian elephants would pay for themselves over and over again by their services, particularly, as I said, in forests, in military transport, in railway works, in loading and unloading rails, sleepers, and drawing trucks; and also on the wharves in loading and unloading ships; in short, I hardly know what an elephant will not do. They stack up timber as regularly as any man, and in Hannibal's time they used to walk on the tight rope.

I understand that there are hundreds of elephants in the Knysna bush and also in the reeds in the Zulu country, where they cannot be shot, but where with the assistance of tame elephants they could easily be caught. But the distance is of little importance, as even if we had to send to the Limpopo or Matabele country it would be only a month's march for tame elephants, and the whole of the Kafir population would turn out willingly to make the "corals" for the sake of the elephants which might be killed in addition to those

caught.

The cost of keeping an elephant in India does not, I think, exceed f,50 a year, but no doubt there are many persons here who can give it accurately. I should say that an elephant would be far easier and more inexpensively kept here than in India, where there is a dense population and comparatively little wild fodder to be procured, so that straw has frequently to be purchased. Here there is always bush, grass, or reeds, to be got within a short distance, even where there are no trees for leaves. Where such is to be got in India a few balls composed of rice or meal, seasoned with spices are added only to the ration of fodder. If the elephants were found not to answer for catching others, or for work, they could be readily sold for European, Australian, or American Menageries. I heard lately from Mr. De Smidt an amusing anecdote of a Mr. Von Alphen, a well known Dutch engineer, who proposed to catch elephants by hanging up tubs with sugar and rum in their haunts, and so taking a dirty advantage of them; chloroform would, I think, be a better mixture then the rum, but either might be successful. In any case the use of tame elephants and experienced catchers would be necessary, otherwise we might find that we had caught a tartar or "a white elephant."

In India I have seen young elephants tamed, but the Goverment never tame them as they generally turn out vicious. The African elephants at the "Zoo." are both quite young, one being almost a calf, and as young elephants have been tamed here already it would be worth while to offer a reward of, say £100 or £200, according to age, for a young elephant say six months after being caught among the hunters and traders in the interior. The great difficulty, of course, is to bring them in alive owing to the want of milk, but such a reward might be an inducement to take in cows; and it has latterly been found that soup answers as a substitute for milk in keeping them

alive.

Why explorers and traders have never used Indian elephants is a puzzle to me. If Livingstone had had only one he would in all probability have completed his discoveries and have been alive now to tell the tale. The only objection would be that the native chiefs would go mad with covetousness, and be apt to go to any extremity to possess themselves of such a prize as a tame elephant, but this objection would not apply to such expeditions as Cameron's or Colonel Gordon's. I should be glad if anyone who knows would inform us why elephants have not been employed by Speke and Grant, Livingstone, Cameron, Baker, Young, or Stanley. I know that Baines and my son St. Vincent were most anxious to use, but had

not the capital to send for, them, though they would have saved large

sums of money by employing them instead of bearers.

Whilst on this subject I may say that in my opinion camels would in certain localities be found equally valuable. Some were used here once for exploring, and I believe answered very well. Livingstone's were all killed by the brutality (frequently on purpose) of his Sepoy servants, and they were used in a wet and boggy country to which they are quite unsuited; but I cannot imagine any country where they would be more likely to succeed than this. Five were introduced in Natal lately (but they were miserable creatures, half-dead) from Zanzibar.

I lately obtained permission from the Lieut.-Governor of Natal for an Arab horse to be sent from India for Mr. Charles Barry, in a coolie ship, and I have no doubt that the same permission could be obtained to bring elephants. Steam vessels are frequently employed on this service. No animal (except a pig) is so good a sailor as an elephant. There was no accident to the numerous

elephants sent to Abyssinia in the war.

The Natal Government has now agents at both Calcutta and Madras, who would no doubt be happy to give any assistance in their power in purchasing and shipping the elephants, or the Government

might do so.

I wrote at the request of Mr. Charles Barry lately to the Government of Bombay, requesting that they would permit the superintendent of their stud department to select an Arab horse for him, to be sent by rail to Madras for shipment by a coolie ship to Natal, but as he has gone home out of health I presume that he has not carried out his intention. Some years since I sent a cargo of horses to the Bombay Government, most of which were killed in a cyclone, or by being battened down during its continuance. Those which arrived were highly approved of, and the principal Veterinary Surgeon reported "the horses are there and it is only a question of getting them over." On this occasion I suggested that two of their best Arabs should be sent to Natal for sale for the improvement of the breed there. This was approved, a vote taken by the Bombay Government for the purpose, and two splendid Arabs were offered to the captain of a Natal ship (which had brought horses) for conveyance, but unfortunately he refused to take them as it was near the monsoon season, and so the opportunity was lost.

I feel confident that if a similar request were made by the Cape Government it would be acceded to; but why should not the Government send for them? I am sure that horses so selected would fetch here more than they cost, and that the breed of ordinary horses for cavalry remounts, and for harness, would be wonderfully improved by crossing with Arabs such as were formerly used here, but the breed of which is now extinct. Horses bred from English stock require to be well fed and cared for, but the Arab stock thrive and develop on little. I see no such horses (at ordinary prices) now as

those which were bred twenty or thirty years ago from Arab stock. I think it likely that even better Arab horses might be procured from Egypt than from Bombay, and I have no doubt that the Khedive would, on the application of this Government, lend his assistance in the matter, and the horses could be sent up by the steamers viâ

Zanzibar, and camels also.

The Natal Government once applied to Her Majesty's Master of the Horse, saying that they understood that Her Majesty had frequently Arab horses of the purest breed which were not required, and requesting that if such was the case one might be spared to the Government. There were none just then, but I think now that by application in the proper quarter, perhaps to the Prince of Wales, a valuable horse might be got, as the Indian Government is most

anxious to procure remounts from the Cape.

Even now, the price of remounts in India being from £50 to £60, I am sure that a valuable export in horses might be obtained by this Colony and Natal if a line of large and swift steam vessels were established, say once a month, between India and South Africa viâ Mauritius instead of Zanzibar. These steamers would bring coolies to Natal (as this Colony will not have them) at a great saving on their present cost, and they would take back return coolies and horses, Indian corn, or other grain, wine, and many articles of export from our ports, which would find a market in India or the Mauritius. I made an attempt when in London in 1875 to get such a line started, and I think now that the South African Colonies are more appreciated, and the Natal Government is importing more coolies, it might be established. Such a vessel might run every alternate month, and two ships would thus suffice. It is probable that the coolies passing between Mauritius and India would be taken by these vessels, and I think it likely also that sheep and cattle might be exported by them to Mauritius.

I am sure that £20 would suffice for the passage of a horse by such vessels to India, and many of the horses sent from this would readily fetch £100 or more there, whilst ordinary remounts, which could be bred here to pay at 120, at three years old, would sell in

India at £50 to £60.

Hitherto the sole cause of failure in establishing an export of horses to India has been the want of steam transport at reasonable prices. At present steamers are hired to take coolies to Natal at a

high rate, having to return in ballast.

# A Journey to the Porth—Porway, Swedon, and Hinland.

BY

HIS EXCELLENCY LIEUT.-GEN. SIR A. CUNYNGHAME, K C.B.

(Concluded.)

#### IX.

From Viborg to St. Petersburg the railway system is now perfected, connecting the most distant parts of Russia in Europe with the capital. We here therefore bid adieu to our carts and carrioles and

seated ourselves in a comfortable railway carriage.

At the station at Viborg we witnessed an affectionate leave-taking by a batch of Russian military prisoners, in parti-coloured dresses, who were being sent in chains to St. Petersburg, and we were told that their future place of exile was to be a very distant part of Siberia.

At Terijoki we passed the boundary line between Finland and Russia. Here we stopped to breakfast, all around forcibly reminding us of the strong predominance of the Eastern character of the people we were now about to visit.

The refreshment saloons at the railway stations throughout Russia are generally well arranged, for it suits the habits of the people who reside in the neighbourhood regularly to take their meals at them.

One of the signs of our approach to St. Petersburg was that of the immense vegetable gardens through which we passed. On nearing the city the soil appeared very rich, and the ground encumbered literally with millions of cabbages. The industrious peasants were at their labours close to their small cottages, near which was invariably the high post with its diminutive box on the top, so universal in Russia for the squirett bird.

The dress of these peasants brought back to my recollection old Russian scenes—the familiar costume of the red shirt, black vest,

small round cap, rough coat, and high boots being invariable.

The entry to St. Petersburg gives the idea of a ragged unfashioned city. The buildings are frequently of an imposing appearance, but in reality they are of lath and plaster, the wood of which the Corinthian columns are composed frequently showing through the stucco, the Imperial palaces and churches being, however, an exception to this rule. The people appear very unadvanced; great penury and great extravagance being side by side.

We found rooms in an hotel at high prices, St. Petersburg being noted as one of the most expensive capitals in Europe; the attendants were lazy and grasping, and so totally different to what we had

experienced in Norway and Sweden.

To describe what we saw or what places we visited at St. Petersburg would simply be transcribing a certain number of pages from Mr. Murray's Guide-Book, which is one of the very best that has been published regarding any country in Europe. As our time was limited we were up early and late, the fatigue of sight-seeing in this immense capital being as great as our endurance could possibly surmount. His Excellency the British Ambassador was most kind, causing facilities to be placed in our way, which tended greatly to enhance the pleasure of our visit.

One of the most interesting excursions was that to the St. Sergius Monastery, distant about fourteen miles from St. Petersburg. church attached to this monastery is one of the handsomest in Russia, and is in great consideration with the aristocracy. On the day of our visit there was an especial ceremonial, thus the opportunity was presented to us of witnessing a very interesting service. Neither organ nor other musical instrument is allowed to be used in the Greek Church, the service is entirely vocal and almost enclusively confined to that of chaunting, the bass voice alternately answering the treble, the effect being very singular and very pleasing.

Another interesting excursion was that to Tsarkoe Selo, the country palace of the Emperor. The grounds around this edifice are most extensive, but to draw a comparison between this and that of Windsor Castle or between either of the parks, would be most

disparaging to the Russian.

We also visited Peterhoff, using for this purpose the railway, where I had the good fortune to sit next to an officer in the Russian Service, an A.D.C. to the Emperor. Singularly enough he turned out to be a Daghestan Prince, Abdul Ali. He came from Ferish Austhura.

The year previously I had visited the Caucasian mountains and Georgia, and was acquainted with that beautiful and interesting country, his native home, which had been comparatively speaking so recently annexed to Russia. It was with no small delight that he received my description of the present state of his native country. One of his brothers was Imaum or priest in a moslem mosque in Daghestan; another brother was in the service of the Shah of Persia. His family lived near to Guinib, in the heart of the Caucasian range, the last stronghold of Shamyl. He informed me that at the surrender of that chieftain he was brought, when a child of four years old, to St. Petersburg; he was educated at the Imperial school, and is now placed on the staff of the Emperor. He has thus been quite Europeanised, and can scarcely speak his own native tongue, the Tartar language.

The plan adopted by Russia in its central Asiatic conquests, in respect to the native princes, differs widely from our own, but there can be no doubt that it acts very materially towards ingratiating their rule upon the feelings of the people. When they conquer a country or province, they not only give all the old advantages to

those persons of superior position, who are willing to accept their government, but also allow them to retain their titles and most of their privileges. Some of the youngest members of superior families are always brought to St. Petersburg, where they are educated, and eventually they are given rank in the Russian army; thus insensibly they assimilate themselves to their conquerors, accepting, if not always his religion, yet his habits and his customs, and become almost one and the same people. They look to Russia alone as the source from which they derive their advantages. This selected member of the family, after a considerable interval, is permitted to visit his native country, and is granted every opportunity of showing in his wild home the superior position and advantages which he occupies in Russia. The effect which is produced is said to be most beneficial to the Imperial system.

I was struck by an account of a recent traveller in Russia, who

upon this subject has made the following observations:-

Some years ago I was a guest of the General, while on a journey from Tiflis to St. Petersburg. At dinner I met several invited guests, officers and officials. During the dinner the General made the following

remarks, which struck me much at the time. He said :-

"The company present will give you a good idea of the force of Russia in assimilating foreign elements. I am an Armenian, but I think no onc could detect it by my speech; my wife is a Georgian, and speaks the purest Russian; at my left hand is the Chief of the district, who is as Russian as if his ancestors had been in the country for 500 years, though he is of recent German origin; next to him sits my Adjutant, Captain Allison, whose grandfather was an Englishman; he himself speaks no English; and so on to the end there is not a man present of Russian origin, but it is a thoroughly Russian company. Then, as to the place which I occupy, Vladikavkay, as you know, means in the Russian language, commanding the Caucasus—in other words, the key of the Caucasus. Now, the Russian Government puts this key into my hands with the same confidence as if every drop of blood in my veins were Russian. Neither England in India nor France in Algiers dreams of giving a principal command to a native; while on the Caucasus the highest positions are held by natives. At one of the most critical periods of our history the Commander-in-Chief was a Georgian, Prince Tsitsiani, who fully justified the choice of the Government, for he was one of the ablest men we have had at the head of affairs."

The British, on the contrary, conquer provinces in India, but, although the reigning dynasties are invariably granted handsome pensions for one or two generations, yet the young men of the superior families are allowed to slink into obscurity, detesting that nation whose victorious arms have caused them so much injury. On the first opportunity they are ready to rebel, and endeavour thus to recover the position which their fathers held in that native state.

These two systems have a wide difference, but it is very difficult to say which is the most advantageous as regards each of these two great separate Empires. Time alone will show. But I am inclined

much to prefer the Russian system, as I have personally been a witness to the faithful and energetic services performed by the Princes of the Georgian Kingdom, the Bagratides, &c., so many of whom are now Governors and Generals of the Russian army in

that very country where they were once kings and rulers.

Telegraphic communication is most carefully preserved in Russia. It is one of the great means by which the central authority retains its power over its distant provinces. I counted no less than twentynine separate wires, by the side of one line leading from the capital all parts of the Empire, to Odessa, to Sebastopol, to Tagenrog, to Tieflies and Erivan, to Tobolsk, and the most distant parts of Siberia. By this means it not unfrequently happens that an incipient rebellion is suppressed and even the troops restored to their former stations, before the fact of the outbreak is known at the capital at St. Petersburg, or Moscow, except to the authorities. Such is the terror which this rapid means of communication has inspired amongst all those who come within the circle of the police "espionage" (and in Russia none escape it) that no one, however distant, feels himself perfectly safe; moreover, it not unfrequently happens that a person of consequence or even of distinction is actually on his way to Siberia at the time when his fellow conspirators are drawing towards their final arrangements for their conspiracy.

At the Ambassador's table I met a most interesting medical manan Englishman-long a resident in Russia. He had just returned to St. Petersburg from an overland journey from the mouth of the river Amoor, in the north Chinese seas, having been attached to the suite of H.R.H. the Grand Duke Alexis, on a long tour which he had just completed. He had started from Russia in the previous year and had visited England and America, Rio de Janeiro, the Cape of Good Hope, where I have since found he was most hospitably received; also, Java, Hong Kong, Pekin, and Japan, from thence he reached the wide-spreading dominions of Imperial Russia, at the Amoor; and from there, crossing Mongolia and Siberia, he passed through Tobolsk and Niji Novgorod to the capital. A few strokes of the pen will easily write down the names of these countries and cities, but what a diversity of civilization and of scenery, of inhabitants, of customs, of languages, of climate, and distance had he not encountered on this tour! Time would not permit me fully to compare my experience with him of the many nations in this list that I had also visited. But those less known, such as Mongolia and Siberia called forth in me the deepest interest. The richness of the gold-mines of Mongolia he described to me as almost fabulous, but added that the natives of that country, which from the difficulties of passing over it being almost insurmountable is so seldom visited, conceal with the utmost pertinacity all knowledge of the riches of their country, lest it should be seized by rapacious strangers, to the detriment of the Mongolian Tartar.

One interesting evening we spent at the Summer Gardens near Yelaghin Island, having been invited by a member of the Embassy to a choice Russian dinner to be served to us at the Demidoff Gardens. It was previously determined by our host that nothing should be wanting to make this repast the most recherché possible. It was to be entirely of a native character, and being so perfect I can but do it some justice by a recapitulation of the "Menu." It commenced with the Zabuska, consisting of tiny morsels of fresh caviar, raw herrings and smoked salmon, with balyk or dried sturgeon digested with a liqueur-glass of Kümmel:-

#### MENU:

WINES:

Zabuska (as described above.)

Kümmel (liqueur).

Ukhà (Fish soup made from Sterlet) Sherry (from Crimca).

very choice.

Pattés of isinglass with flesh of stur-

Champagne (of Yarrorla).

Cototèles à la Pojorski (petit poulet). JOINT:

Prince Woransoffs Kahitiskoe Burgundy.

Baraybock (roast mutton and buck wheat).

Cookompopo (from the Baltic.)

ENTREMETS :

Jarkoe (young capercailzic and salted cucumber.)

Wine of the Don.

Buddin à la Nestlerood (sort of iced Sweet Gumbrinskoc. plum-pudding).

Ices: flavored with fruit.

This dinner was followed by small cups of Joltoichai or yellow Mandarin tea without cream or sugar. I believe this to have been a most recherché Russian dinner. We were grateful for the attention offered to us, of enjoying such a singular entertainment and under

such pleasant auspices.

On returning home we had an opportunity of seeing a good deal of the common people, and no stranger that visits Russia can be otherwise than struck by the enormous amount of drunkenness which generally prevails amongst them, whether it be in the city or in the suburbs. Along the high-road, driving, or walking, on all sides the numbers of persons in different stages of intoxication is truly distressing to witness.

The most interesting expedition which we made was to Cronstadt. It was a fortunate circumstance that Admiral Popoff, the Admiral of highest esteem in the navy, was on board the steamer that took us there. As soon as I was presented to him, and he became aware that I was a general officer in Her Britannic Majesty's Service travelling for recreation, and, moreover, that I had served throughout the Crimean campaign, he showed me the most marked attention; and here, again, as I had on my previous travels in Russia experienced,

the fact of my having served against the Russians only enhanced the general sentiments of kindness with which I was always surrounded.

Admiral Popoff is well known to Englishmen as the adaptor if not inventor of the circular iron-clad ships. He is most distinguished in Russia, and is represented as being a great friend of the Emperor. His manners are charming, free, and sailor-like, and I trust he would pardon the observation, which I mean as a compliment, that he closely resembles what is generally looked upon as the personification of the old-school English Admiral. He first showed me a magnificent iron-clad which was nearly completed, Peter the Great, she was about 7,000 tons burden, to carry forty ton guns, and built with fourteen inch plates. He compared her with our Devastation, which she was intended to exceed in all particulars, and which vessel is 6,000 tons burden, has thirty-six ton guns, and twelve inch iron plates. The iron of Peter the Great had all been brought from England, most of the superior men who worked upon her werc Englishmen. These facts are naturally satisfactory to our pride, more especially as no country in the world can produce finer iron than Russia and Finland.

There is no doubt of the increasing energy and power of the Russians, and the Admiral informed me that they had lately east

and turned out a forty ton steel gun from their own works.

I was also shown two new Monitors and an iron-clad frigate which were almost completed, but I was not prepared for the compliment of being taken into the workshop in which the new Russian fish-torpedo was being constructed. Shortly before leaving England, I had inspected the Woolwich fish-torpedo, and also saw it in action. I was the better able therefore to compare the Russian with our own. Now that three years and a half have elapsed, and the torpedo-fish is no longer the secret which it then was, I do not consider I am committing any breach of confidence if I say a few

words concerning both of them.

The properties of the English fish is that it travels with its own initial volocity under water; its direction is given at starting; its speed is about ten miles an hour; its distance about 700 or 800 yards; it explodes by concussion; it is beautifully, indeed elegantly, made of polished steel. As I was never entrusted with the secret of its formation, or by what means it is made to travel, retaining always a predetermined depth under water, so I may hazard for the consideration of my readers an opinion of how I believe this is done. I suppose the fish to be formed on the principle of the aneroid barometer. A lateral rudder is set to guide its rise and fall in the water, say about six or eight feet beneath the surface; should it rise above this, the pressure on the drum acting upon the rudder would cause it to recover its proper submersion; should it fall beneath that depth the relief on the drum again acting on this lateral rudder, would cause it to rise and to follow the desired depth at which it was set. This steerage power, to ensure its retaining the proper depth beneath the surface of the water, could not fail to be thus corrected, provided the machinery remained in working order. To ensure its direct course towards the object which it is intended to strike, there is a perpendicular rudder either set true or corrected according to the ascertained deviation of the fish. The means of propulsion I believe to be clock-work. I do not think it can be compressed air, as if so, a great turmoil in the water would result and clearly show on the surface its course beneath.

The Russian torpedo was formed much heavier, larger, and more blunt at the points. I understood that it progressed by machinery from within, and was exploded by concussion, and I imagine the same means of flotation at an assigned depth was used as in the Woolwich one, but its course was directed through a string from the shore, which unwound as it proceeded. By means of an electric battery the rudder was guided as was desired. Its rate of speed I understood did not exceed three or four miles per hour; but the distance it could travel far exceeded our Woolwich torpedo. It is very difficult to say which of the two may be looked upon as most useful in war, but no doubt each upon special occasions would possess its own advantages.

All the recent improvements of moving guns by hydraulic pressure, bursting shells with water charges, &c., appeared to be known to the Russians, which, however, is not be wondered it, when the generous, though, some would say, over-liberal way in which the newest improvements at our dock-yards and at the Woolwich Arsenal are shown to strangers and foreigners, is taken into consideration.

The works of Fort Constantine are really magnificent. They are low, and stupendously strong rotatory iron towers abound. The number of mounted guns to defend the arsenal is at least seven hundred. They are all of large calibre, and some of immense weight. The channel which ships are obliged to take to reach the dock-yard on the island is not more than 150 yards wide and twenty-five feet deep. It lies directly under the strongest batteries, and, I believe, it is impossible that anything floating could pass there. The Naval Club at Cronstadt seemed admirably arranged and conducted. It is no small compliment to our navy when I remark that in so great an estimation is our navy and are our officers regarded, that all Russian naval officers are compelled to learn the English language. None can succeed in their profession unless they speak and understand it well.

I had not been many days at St. Petersburg before I commenced my preparations for a very distant journey into the interior. My intention was to visit Moscow, Niji Novgorod, Kayau, Perm, Ekateringburgh, thence to cross the Ural Mountains to Tobolsk into Asia, visiting the west of Siberia, from thence I proposed to recross the Ural and journey in a tarantoss, a species of Russian drotskei, from Ekateringburgh to Ufa on the Bjelaja river which flows into the Kanea, and thence into the Volga. From Ufa I proposed to turn my steps south to Orenburgh and thence down the river Ural to Uralik, and from thence crossing the country to Saratal on the

Volga, where the arduous labours, which I full well knew from such a journey were in store for me, would be almost completed. At Saratal I should once more find myself amongst a system of railways, which connect all the large towns in Southern Russia from east to west. Such a journey could not fail to be most interesting, and although I did not attempt to disguise to myself its difficulties, and to a certain extent its dangers, yet I possessed an inward feeling that I should accomplish it as successfully as I had done in the previous vear in the hitherto almost unknown and untravelled country of the Caucasus in Daghestan and in Armenia. Judge, then, my disappointment, when in the midst of these preparations I received through H.E. the Ambassador a telegram from the Horse Guards, directing me to take command of H.M. Forces on the other side of the world in South Africa. Such is the fate, such is the life of a British soldier. My whole plans were changed, three months would have sufficed to accomplish this long-desired journey. Alas! this could not be, therefore I left it to some one more fortunate than myself to follow the line which I could not, and at once made my arrangements to return to England. I determined, however, to do this by way of Moscow, which is by far the most interesting city in Russia.

#### Χ.

On the evening of the 20th August, we took our seats in the railway for the city of Moscow. In the carriage in which we travelled were two Russians who probably mistook us for dangerous characters. For hours they never took their eyes from my face. It was of no use trying to avoid them; four glaring eyes were continually upon me. Feeling, however, a "mens conscia recti" as to all political motives, such as to endeavour to overset the Government of the Czar, I turned round and went to sleep.

The Russians (but especially the half civilized ones) have a peculiar habit of staring at a stranger. I was once informed that this was one method of doing him honour. Many years since when riding from Galta to Kertch, I was escorted by a Sotnia of Cossacks, who, at whatever pace I adopted, from a walk to a gallop, kept during a ride of nearly forty miles at precisely the same distance from me. Each soldier during the whole of this time was leaning forward, almost standing in his stirrups, and staring steadily into my face, forty eyes during the entire distance being thus directed upon me.

The wonderful appearance of Moscow, which has been so often related by travellers, can scarcely be exaggerated. The clean white houses and palaces surmounted by green roofs, the churches with gilded spires and cupulos, but above all, that singular building the Kremlin, gives to Moscow a charm entirely distinct from any city I had previously visited. It conveys a feeling of freshness and novelty that elsewhere could scarcely be realized.

To attempt a description of what is to be seen at Moscow would best be done by copying page after page of the Guide-book, which I do not desire to inflict on my reader; but to say a few words, however, concerning its wonders is imperative. The Kremlin is in many respects the most curious and unique of buildings. It contains some of the most magnificent rooms and most highly decorated chapels in the world. It at the same time possesses all the charm of extreme irregularity. Its excessive gorgeousness is relieved by an oriental character which detracts from vulgarity, and although this immense building is painted red, white, green, &c., and is both gilded and silvered, yet this is done with such good taste as not to offend

the most sensitive eye. Through the kindness of the Governor Count Lambsdoff, I was permitted at a very irregular hour to see the palace with its wonderful antiquities and its extraordinary profusion of treasures such as must be seen to be believed. Amongst the wonders of the Kremlin are the tower of Ivan Veliki, the view from the summit of which is one of the most remarkable in the world. The Czar of Bells, of which all the world has heard, is no less than tons in weight. It stands more than nineteen feet in height, and is sixty feet in circumference. The Cathedral of the Assumption is a most impressive religious building, and although gorgeous in the extreme, large golden and silver shrines abounding, yet the antiquity which pervades all, relieves the monotonous feeling of its excessive richness. As in Roman Catholic Cliurches so the walls of this Greek Church are covered with pictures; but these, unlike the former, are invariably hidden by silver or gold plates, the faces alone of the figures being visible. Images are not allowed in Russian churches; flat representations of saints alone are permitted; and the custom, therefore, is resorted to of representing their saints in a pictorial form, but covered with gold or silver embossed surfaces. The large Bible is a singular book. It is of such an immense size and so elaborately bound and embossed with clasps as to weigh more than 100 lb.

While walking through the streets of Moscow we were attracted by a curious sight, that of six very long charabancs. These were four-wheeled carriages, each drawn by three horses abreast, these animals being decorated with peacock feathers. Seven women were sitting "dos à dos" on either side of each carriage; in all, eighty-four women. They were all dressed alike, and each was holding a little baby in her arms. These women were laughing, and seemed very proud of their occupation. They were apparently receiving the congratulations of the passers-by. This singular spectacle caused us to make some inquiries, when we found that the eighty-four women with their babies were being conducted in Government carriages, especially set apart for the service, from the Southern Railway Station where they had just alighted, to the Foundling Hospital where they were about openly to deposit their little treasures, as is the custom in Moscow, without any further inquiry regarding them.

This institution is one of the most singular in the world. It stands as a protest to the doctrines which are so widely disseminated regarding

the lapse in morality which is engendered by such asylums. This hospital admits yearly about 12,000 children. It has secret as well as open wards. The whole system is not veiled in any obscurity, but is an institution which stands openly forward avowing its benefits to all Russia. It is supported by a yearly grant from the State of £180,000. Although this establishment is said to be well conducted, yet it is calculated that not more than one in four of these children arrive at maturity.

The encouragement which this institution receives at the hands of Government is remarkable. The boys are not amenable to military service, and each girl on her marriage is provided with a

"trousseau" at the expense of the State.

The drotskies in Moscow are far superior to those in St. Petersburg, being more like private carriages; indeed it is by no means unusual for gentlemen and noblemen, when they leave the city to place their coachmen and carriages on the public stands, thus to gain the means of keeping them during their absence. Many of the drivers are connected with the highest families in Russia. One was pointed out to me in particular, who was said to be a Prince, and who had a right to be, and was always styled "Your Excellency."

Although Russia may be considered essentially an aristocratic country, yet a great change has taken place since the emancipation of the serfs by the present Emperor. The military profession ranks first in the Empire. Some short time since a general officer was displeased with the conduct of a waiter. Unbuttoning his coat he showed him the insignia of his rank, saying "Do you not perceive that I am a General?" "Yes," said the other, "but now we are emancipated I am as good as you:" an extraordinary change in the former cus toms of this Empire.

I much regretted to observe in Moscow the same habits of drunkenness which I had met with in St. Petersburg, and which no doubt will be found in all countries verging towards civilization, whether they be inhabited by black or white. Education, I believe, to be the only eradicator of this evil. Certainly prosperity does not appear to stem this vice, for in our colonies, where all classes are generally prosperous, drunkenness appears more in the ascendant

than in the mother-country.

Bohemians, or Gipsies, hold much consideration in Moscow. Their dances, singing, and music appear to create quite a sensation in this capital. But one of the most remarkable of Russian institutions is that of the tea-houses. Many of these are large and very handsomely fitted up. They invariably possess a barrel organ, which i sometimes of the most expensive kind, of great size, and costing many thousands of roubles. They are worked by very powerful machinery. It is the delight of the Russian while sipping the hot Joltoi Chait to listen to their sonorous sounds. The waiters in these houses are most attentive to their guests. They are very clean, and invariably dressed in a white overshirt beautifully embroidered and gathered in with a Circassian belt.

Tea is always drunk in Russia without either cream or sugar, and nothing can be more refreshing either in extremely hot or cold weather than a cup of yellow tea. It has often struck me that in no way could a bequest be more serviceable to posterity than such an institution as a free tea-house. It would, in my opinion, tend much to general sobriety, and cause a preference for the herb

rather than for fermented liquors.

The most interesting excursion which we made from Moscow was to the military camp. It is in an enormous plain about seven miles distant from the city. Here about 20,000 men were being assembled for the inspection of the Emperor. Amongst them I saw some apparently very superior regiments of Lancers. Nothing could exceed the kindness of the General in command to me, and he directed that anything that I desired to see in the Russian army should be placed at my disposition for my inspection, according to me the same military facilities which Admiral Popoff at Cronstadt had done regarding naval ones.

Before leaving the interesting city of Moscow we visited the Simonoff Monastery, founded by Saint Sergius about 500 years ago. The view from the top of the belfry is most beautiful. At the time of our visit an especial service was being carried on in the church. The chaunting was more impressive than I had previously heard it in Russia. It appeared for a considerable time to resemble our 118th Psalm, in which the same continuous responses were made to certain affirmations. The deep voices had in this instance a strangely impressive effect, instrumental music being never resorted

to.

The Russian priest has a peculiarly patriarchal appearance, his long beard generally reaching almost to his waist. He is very unlike the priests of the Roman Catholic persuasion—in one particular especially so. The former are compelled to be married, indeed no priest of the Russian Church is appointed to a parish until he is a Benedict.

The appointment to which I have previously alluded—the command of the troops in South Africa—precluded a longer stay in this interesting city, or indeed in Russia, and we were now compelled, however reluctantly, to turn our steps homewards.

On the 22nd of August we commenced a railway journey from Moscow to London—the longest, perhaps, in Europe—and although we indulged but two nights in a bed, this portion of our travel occu-

pied eight days and seven nights.

How many interesting scenes and cities did we not rapidly pass—the theatres of historical events! We delayed but a short time at Smolensk. On entering Poland I was struck by the manner of the Poles, who evinced a most unfriendly feeling towards the Russians, and who would not answer them except in the Polish language. And although by law in this district there is a fine of thirteen roubles for any one speaking Polish to a Russian, nevertheless it is impossible Vol. XV.

to carry it into effect. It was on this border that the last insurrection was best sustained, in the immense forests which exist in this direction.

We saw too little of Warsaw to speak of the city or its inhabitants, but they appeared to be in all respects more advanced than the Russians.

At Berlin we had one whole day to visit the city, which required our utmost energies to do in a very superficial way, and after this brief delay we made the best of our way by Cologne and by Brussels to London, arriving there on the 28th August, not quite two months from the time of our departure, exemplifying what may be accomplished even in the wilder and less frequented parts of Europe in so short a period.

Our entire expenses amounted to but £108 10s. 6d., an almost incredibly small sum, when one reflects upon the distance we had

travelled and the number of countries which had been visited.

### I recapitulate our journey :-

1 recapitulate our journey .—							
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# The Water Supply of the Nanoo.

By W. PROSSER, F.G.S.

THERE are few problems that demand a satisfactory solution more urgently in South Africa than the obtaining of a sufficient supply of water. Large tracts of this continent suffer from two great evils, either too much or too little water at a time. What the agriculturist especially desires is neither a deluge nor a drought, but a constant supply adequate to his requirements-not a flooded superfluity at one time, followed by parching thirst during the rest of the year, but a sufficient quantity through the round of the seasons for his daily wants. And, in whatever way the wealth of the soil is sought for, whether by growing crops, pasturing sheep or cattle, or planting trees for the future use of man, available water equal to his needs is an absolute necessity. Water is one of the monarchs of the world. In his smiling presence industries flourish, sources of wealth increase, cities rise and grow great, and the very desert blossoms like a rose; under his dreadful frown or total absence, man's greatest effort to extract nutriment from the bosom of mother earth utterly fails, and abject absolute poverty reigns-the otherwise most fertile spot becomes an arid desert : even man himself ceases to exist.

Nature has ordained that all life, whether animal or vegetable, shall be called into being and sustained only by water. This substance is truly the sovereign of the animal and vegetable kingdoms. Every plant and living thing owes its very existence to and derives all its sustenance from it, in some of its many forms, either in its limpid liquid state, or vapour, as crystalline snow, or solid massive ice. For it is the only vehicle employed by nature for the conveyance of inorganic matter into the tissues of organic forms. It is the only solvent used by nature for rendering solid substances fit for food to sustain animal and vegetable life on the globe. Astronomers tell us that there is no water on that side of the moon which faces our earth. If it be so, then we may be certain that no living organisms allied to our own can exist there. There can be no song by day nor cry by night, neither the fragrant breeze nor symmetry of form. Water is the elixir of life, and on its sufficiency and purity our very existence and the joys of life largely depend.

With the exception of those fountains which owe their origin to fissures beneath the bed of the ocean, there is but one source for man's supply of water, namely, the rain or snow falling on the earth. The water thus given may be laid hold of for his use as it drains along the ground, or as it collects in rivers and lakes, or as it issues out of the ground in springs. The rivers, springs, or drainage water

he may store up for future use by means of dams.

But our object in the following paper is not to treat this subject in its entirety and in all its theoretical and scientific bearings, but to endeavour to throw some light on the difficult and practical question of how to obtain a better supply of water in the Karoo. With this

view, we shall be as concise and matter-of-fact as possible.

We need not apologize for attempting to throw some light on this subject. For just at the present moment man's efforts in the Karroo are entirely baffled by scarcity of water.\* seen with our own eyes the trek-oxen of the traveller die by the roadside of sheer starvation, from the poverty of the veldt, and want of food consequent on the scantiness of water. Sheep fall off in flesh from an average of 40lb. to 30lb., with a consequent loss to the community of twenty-five per cent. of the actual food supply afforded by the Karroo; and at the present moment hundreds of lambs have to be killed to save the more valuable dams. Another important branch of the farmer's work, that of growing cereals, is seriously impeded by the same cause. In no part of the Karoo is any effort made to grow corn unless there be facilities to lead water over the ploughed land, and that, too, at least five times during the season. There is no lack of land suitable for this purpose in the immense district in question. Its fertility, too, is almost unprecedented, fifty, sixty, and seventy-fold being the husbandman's ample reward. But fertility of soil and suitability of climate are useless without enough

We can by no means exonerate the occupants of the lands in the Karoo from blame. They show, with scarcely an exception, a great want of energy in connection with the utilization of the scanty supply nature has accorded to their district; and an utter inability or disinclination to increase that supply. Want of capital is doubtless an all-sufficient reason in some cases, but not in all; want of an intelligent grasp of the subject not unfrequently presents a more

serious impediment.

After a residence of the greater part of the year in the Karroo, and after devoting much time in dilligent search, after traversing the district through and through, as only a resident could do, from the Draai to Grootfontein, we are fully persuaded that the present quantity of available water may be increased, and that, too, at no great cost, tenfold. One way, and the easiest, and one requiring no considerable amount of capital, is to thoroughly open and keep open all existing springs. Not that we consider the maximum amount to be obtained from this source would be in any way equal to the wants of the farmer. But though not sufficient for a complete system of irrigation, so many wells would be of the greatest service to the sheep-farmer. To obtain an ample supply for all purposes works on a different plan and on a grander scale must be executed. These works must be either dams near gathering grounds of sufficient area to collect thunder showers, or dams on rivers to husband their currents; or a thoroughly different plan may be adopted, namely, the

<sup>\*</sup> This was written in the month of May.

sinking of artesian wells, or the water obtained in these wells may be stored in dams.

It is to be feared that it would be useless to hope for any such work to be attempted in the Karoo by the present holders of the So before closing this paper we may briefly indicate what the district engineers of the Beaufort West Extension Railway, now in course of construction as far as Grootfontein, have done towards obtaining a better supply of water for the use of their people, animals, making of mortar, and so on. Without incurring any great expense or trying any new notions, they heve simply sunk wells in places where the ground or the vegetation seemed to indicate the presence of water. The result has been that over a district extending nearly one hundred miles, they have, with one solitary exception, found sufficient water in every well sunk. True, some of the wells beyond Buffel's River are thirty feet deep; but in most cases they have reached water at a depth of from five to ten feet from the surface. In one instance they found a subterranean current flowing under the alluvium. In such spots nothing more is wanted than putting down an Abyssinian pump, and sufficient water will be obtained for sheep and cattle, if not for a small piece of gardenground or corn-land. The farmer might, by following this simple and comparatively inexpensive plan, greatly increase his present supply and production. But we have yet to learn whether he will even replace the present stagings and pumps on their removal by the engineers.

Before proceeding to the subjects of artesian wells and dams, we will notice a feature in some of the Karroo waters, namely, their

brackishness.

Brackish water often occurs in the Karroo. With the exception of mineral springs, such as sulphur springs where the water is surcharged with sulphuretted hydrogen gas, chalybeate springs, in which salts of iron are held in solution, or calcareous springs, containing soluble salts of lime, spring-water obtained directly from the rock and before it passes through alluvial soil may, as a rule, although never absolutely so, be considered sufficiently pure for all the common purposes of life. Among the exceptions to this rule may be cited the waters of some districts in Namaqualand, which are rendered unwholesome, if not positively poisonous, by the impregnation in lesser or greater quantities of salts of copper. We know of two instances\* in the Karoo where decidedly brackish water is found at the fountain head. We are, however, acquainted with a number of so-called fountains, whose waters are so largely saturated with soluble saline matters that they are of little or no use for man or beast.

This brackishness is generally due to the presence of salts of soda or potash. These, and especially the former, are constituents of all

<sup>\*</sup>In a few cases, insignificant springs issuing from beneath an Alum Shale bed, which is traceable from the Klein Straat to Johannes Meiring's Farm on the Buffel's River, have a perceptible taste of alum.

soils all the world over, and eminently of Karoo soils, from its commencement at the Klein Straat to Buffel's River. Beyond the latter spot for a considerable stretch, the mineral and chemical nature of the soil is altogether of a different character. But we digress. These sodic and potassic salts become component parts of the soil in several ways. (1). By the disintegration of adjacent rocks and the subsequent removal of the disintegrated particles through the agency of water. A considerable area of the district in question is occupied by two rocky formations, which, containing a considerable percentage of potash, namely the trappean or felspathic ash and compact felspar.\* (2). An amount of potash is also passed into the soil from decayed woody fibre; and especially of that of those plants called kraal bushes. The roots of these bushes have the power of eliminating from the soil its potash, which becomes incorporated with the tissues of the plant to such a degree as to render its ash a fair substitute for the caustic potash of commerce in the manufacture of soap. As nothing is lost in nature, when this plant dies the liberated potash returns to the soil in a more concentrated form. (3). As potash and soda is universally present in spring or surface water it follows that, on the evaporation of such water by the heat of the sun, the solid constituents remain. In many parts of the Karroo the earth is covered in summer with a white crystalline crust of potash as with hoar-

Now as the usual salts of potash and soda are readily soluble in cold water, even to saturation, it is manifest that water, otherwise pure, becomes more or less impregnated with these salts during its passage through soils possessing the above substances, and thus it is that nearly all springs issuing from beneath banks of alluvial Karroo soils are brackish. The remedy is to tap the springs or drainage water

before or soon after it enters the surface soil.

Faults are a prolific source of springs. The line of junction of the separated rocks contains fissures of a greater or less extent. These fissures serve as channels through which the drainage water of the hills above percolate into the lower ground where they appear as springs. This supply is further increased, and often to a considerable extent, by the delivery of the water contained by the beds whose fine edges open into the line of fault; and thus it not unfrequently occurs that a fault taps and leads into one district water which would be otherwise inaccessible to it, and often diverts the watery wealth of a gathering ground which would otherwise enrich another tract of country. Such springs are generally of great purity, inasmuch as any mineral substance which the rainwater may imbibe in its passage through the surface soil is deposited on the sides of the fissures of the fault.

Springs also often issue forth from between two rock systems, especially if their lithological character are very divergent, or if their

<sup>\*</sup>The former of the two is erroncously denominated of Porphyry" in some Books,

constituent beds are not deposited in the same plane. If the uppermost beds be of great thickness and contain many joints, strong springs often arise in the line of junction of the two systems. The water supply of a considerable portion of the Karoo is due to the presence of two such systems, namely, the beforementioned beds of Felspathic ash and the underlying Devonian rocks. These volcanic ash-beds \* are deep-bedded and are full of vertical joints; water easily penetrates or percolates through these and appears as springs in the valley below. Most of the fountains in the line of country between the Draai and Rietfontein owe their parentage to these two rock-systems.

From the foregoing observations, it is evident that a careful survey of the rocks of a district should precede any attempt at obtaining a

greater supply of water.

Internal reservoirs give rise to two kinds of springs:

(a) Constant or perennial springs and

(b) Intermittent ones.

Some kinds, such as the carboniferous rocks, not unfrequently abound in cavities of great capacity. Water percolating from above, in time, fills the opening, and, descending through some fissure, appears as a spring at a lower level. If the supply and the demand be equal, then the spring is a constant one; but if the outlet be larger than the inlet, then the flow of the spring will be inconstant, and in periods of great drought the water may for a time cease altogether.

The position of the aperture in the wall of the internal cistern has much to do with the character of the spring. If the cavity be always full and large and much above the level of fountains, the force with which the water issues forth may be very great. If two openings occur in the chamber, one below and one above the mean height of its contents, one will give a constant and the other an inter-

mittent spring.

It, doubtless, not unfrequently happens that the main fissure leading to the surface of the ground may be so confined as to cause such an increased pressure that the water may seek other and more circuitous openings. Hence it is that no effort should be left untried to "open" springs. Removing the surface soil only occasionally relieves a weak spring. At times the internal stream must be followed by clearing away the rock itself before relief is afforded to imprisoned waters. And we may remark in passing that any quarrying to be done should be carried on with caution. The presence of one crack logically implies neighbouring ones, and it is within the range of possibility to lose the spring altogether by the opening of a fresh fissure leading into other districts. Hence the need of caution. Blasting, if possible, should never be resorted to,—

<sup>\*</sup> These trappean ash-beds afford the best building-stones in the Karoo, as may be seen in many of the bridges and culverts of the Beaufort West Extension Railway.

plugs and feathers, or crow-bars, are much safer. Boring a hole judiciously in the right direction at times affords relief to the imprisoned waters. At all times attempts at increasing the supply of water issuing from springs should be preceded by a careful study of the geology of the district in which they occur.

## Zand in the Cape Colony.

Some few years ago it was my lot to become the owner of an estate in the Cape District, and as I have lately seen in one of the daily papers some leading articles upon the present system of land transfer, I think it may not be inopportune to offer a few remarks based on my own observations, and partly upon my own personal experience of the working of the land laws and land system of the Cape Colony.

These remarks coming from an Englishman will of course be considered impertinent, but, being a land owner no longer, I can afford to approach the subject without prejudice; and as far as the actual conveyance of property is concerned, I consider the colonial system is incomparably superior to the cumbrous and expensive method in vogue in England.

Of all the blots upon the colonial land system, transfer duty upon sales is the most pernicious. I shall therefore begin with this, and later on shall have occasion to refer to other artificial restrictions on the transfer

of property,

Transfer duty may be considered in direct relation to owners of property, as well as to Government and the Colony generally. I shall endeavour to show that it is—(1.) The chief of many hindrances to transactions in landed property; (2.) That it hinders the influx of capital; (3.) That it hinders immigration; and that these causes combined, tend to keep down the price of land to the detriment of the present owners; and that as regards Government and the Colony generally, transfer duty yields a comparatively poor revenue—a revenue poor out of all proportion to the strain upon the resources of the tax-payer, and that the burden of taxation in this case is borne, not as is generally supposed by the buyer, but by the seller.

And first as to owners of property, looked at as a matter between buyer and seller. Place yourself for a moment in the position of the seller. You may have inherited a family property overburdened with debt, or you may be some territorial magnate tired of estimating your importance by the quantity of waste ground you possess; you may be a poor man struggling against adversity, or one whose children are clamouring for their portions; at any rate, from some cause or other, you are anxious to sell. Does it ever occur to you to look further than your own immediate surroundings, and to consider yourself as one of a class, a member for the time being of the general body of sellers; that whatever influences act upon the whole re-act more or ess forcibly upon the part, and that the only circumstance that

will make land everywhere saleable is, that for every seller there must be a buyer? If buyers are scarce the price will fall until either outsiders are tempted to enter the pursuit of agriculture or speculators are induced to buy on the chance of selling again at a profit. If buyers are numerous, the price will go on rising until a point is reached at which some of them refuse to give more and retire from the competition, while others are driven to take up Government ground, and the class of speculators have realized their profits. Now the interests of buyer and seller will always be opposed, whatever injures one will benefit the other, and vice versa. I contend that in the Cape Colony dealings in property are so hedged about with restrictions, that it never can by any possibility realize its full value; that, in fact, buyers have it all their own way, especially the man who buys at public auction and is prepared to pay eash without the intervention of sureties.

As far as I can see, there are two causes which tend to prevent would-be sellers from realizing to advantage—mortgages, and the almost total absence of speculative purchasers; and two classes of circumstances which the buyer keeps in view as apparently operating against him, which I shall call certainties and uncertainties; among the former I place things from the operation of which there is, generally speaking, no escape, and which can be roughly calculated beforehand in money, viz.—(1.) Quitrent (if any); (2.) Transfer duty, 4 per cent. on the amount of purchase money; (3.) Government and auction duty, 2 per cent. on the amount of the purchase money; (4.) Brokerage (if any) I per cent. on the amount of the purchase money; (5.) Mortgage stamps, legal and incidental expenses; (6.) Local burdens.

Among the uncertainties I should enumerate: (1.) The stringent conditions annexed to purchasing at public auction; the necessity of personal attendance of two sureties to be approved of by the auctioneer at his peril and risk, otherwise the property to be put up again at the expense and risk of the defaulter; (2.) Consequences of sale by diagram, causing doubt as to boundaries, giving rise to disputes and law-suits, and generally entailing no stop at all here; (3.) Cost of survey; (4.) Obligations and annoyances incidental to quitrent tenure, without power to convert into free-hold; (5.) Servitudes which may not be expressed upon the title deeds.

There may be other causes at work, but these will suffice, and at a later

stage I shall endeavour to show how, in my opinion, this state of things may be improved.

The effect of a mortgage is to hamper the seller, rendering it difficult for him to divide his estate among his children, to sell off any outlying portion he may not require, to take advantage of the approach of a railway, or indeed to venture upon a sale at all, except at some pecuniary risk in the event of a purchaser not being forthcoming. This risk is greatly intensified should property happen to be going down at the time.

The effect of the almost total absence of speculative purchasers is, that there is nothing to prevent property from touching its very lowest point when going down, nor anything to drive it higher when going up. I am quite sure that at the Cape, as compared with other countries, speculation in landed property as a business cannot be said to exist. If it evid dediction in the said to exist transfer and auction duties have killed it. How would a merchant or produce broker contrive to live, if on every transaction he had to pay a tax of from four to six per cent.? If freedom from taxation

at the intermediate stages be the very life of trade, why should there not be free trade in land? If imports are taxed at the Custom House, and then allowed to circulate freely, by a parity of reasoning, land having been taxed once should be free to change hands for ever after. Take the case of a property sold by auction; can it be supposed that a gain of six per cent. to Government has not been met by a corresponding loss in some other quarter? Aye, and by a much greater loss, as I will endeavour to show. It may be contended that transfer duty is a tax on the buyer, and so at first sight it would appear to be; that if he objects to it he need not purchasc. So far well, but what of the interest of the general body of land-owners, that the number of buyers should be as large as possible, and always in excess of the sellers? How shall we compute in pounds sterling the loss to cach individual proprietor throughout the Colony, that is caused by the operation of the two classes of circumstances enumerated as tending to deter buyers from investing in property? But leave this out of the question, and consider the working of transfer duty alone. Imagine a state of society in which transfer duty does not exist, and that you have a farm to sell for which you have been offered £2,000, but the bargain is not yet concluded. A tax of four per cent. is suddenly imposed, with the result of a general fall in the value of property. But will this fall be limited to four cent,? I am inclined to think it will be much more, and for this reason. The confidence of buyers will have received a shock. A tax of four per cent. to-day may be five per cent. to-morrow, besides they will find it easier to offer even money, and the person who is in treaty with you, knowing he will have to pay away four per cent., might possibly be inclined to repeat his offer at a reduction of five per cent.; but suppose he is at this moment for the first time made aware of the other drawbacks to the possession of landed property, I think you may consider yourself fortunate if he is then willing to give within ten per cent, of the price originally agreed upon. On this reduced sum he will pay a lower rate of duty, so that you will be a double loser, and Government will not gain as much as it anticipated.

My conclusion, therefore, is that transfer duty is a tax on the seller, and a far heavier tax upon him than it was intended to be on the buyer; further that transfer and auction duties can only be classed with export duties and such like exploded fallacies. Imagine that Government suddenly imposed an export duty on ostrich feathers, upon whom would the loss fall? Not on the buyer in the English market, where feathers from the Cape compete with the produce of other countries. Not on the Port Elizabeth merchant, who would immediately put down the price to such a point as would not only include all possible risks in the future, but would recoup himself for any loss he might have sustained upon his stock in hand through the operation of the tax. It would not be to his interest to go into the question of what the duty would amount to upon each little parcel of feathers as it came into the store. He would make himself safe once for all at the expense of the farmer by refusing to give more than a certain price. In this way the tax upon the farmer would be largely in excess of the amount which would find its way into the coffers of the Government. As therefore an export duty, no matter upon what, benefits the merchant at the out-port at the expense of the producer, so transfer and auction duties, though paid by the buyer, benefit

him at the expense of the seller. But it may be urged that the matter is as broad as long, that the buyer to-day becomes the seller to-morrow. To this I reply that we have no right to calculate chances, and that our business is to do what we can to improve the position of the present generation of land owners, more especially now that the colony seems to have en-

tered upon another period of depression.

For the information of new comers, I will now give a cursory glance at the usual incidents and expenses attending the purchase and possession of landed property. You may have bought land privately, or perhaps at public auction, and in this way have probably been initiated into the mysteries of suretyship and bonus. "Bonus" is an institution peculiar to the Cape, and consists of a cash payment or succession of payments made by the auctioneer in consideration of an increase in the bidding; consequently, instead of an auction being a spirited competition, over in five minutes, to a bystander it assumes the appearance of a dreary process of haggling between the auctioneer and successive bidders, as he can induce them to come to the front.

Well, you have advanced so far on the road to knowledge as to be considered the ostensible owner of an estate, which may be cither freehold or held on quit-rent tenure, that is subject to an annual payment to Government. By way of illustration, we will suppose the price is £2,000. Very probably £1,000 is the extent of your available resources, but that will make no difference. In the Cape Colony we have long abandoned such old-world notions, as that no one should buy until he can pay, and as regards landed property, ours is a system of credit pushed to its extremest limits, and often into the Bankruptcy Court. Such is the universal prevalence of mortgages that there are plenty of loan societies and insurance companies that will find you £1,500 on first mortgage, at six per cent. per annum, leaving £500, for the balance of your purchase, and as you fondly imagine, £500 to go on with-but wait a while. You may if you please defer taking transfer for six months without incurring any fine, and this will give you time to look round and make yourself acquainted with your neighbours, as well as with sundry little matters requiring outlay which have hitherto escaped notice. One of the first things that strikes you will be the desirableness of having your ground surveyed. Such of the corner beacons as are common to several farms will probably be of stone, and in their proper places, but there may be other beacons, consisting perhaps of whale-bones, fixed upright in the earth, and one of thesc may have been shifted. In the meantime six months have elapsed. You have duly attended at the Deeds Office in Cape Town either in person or by your attorney, taken transfer, as it is termed, of the estate, and passed a mortgage bond in favour of the Loan Association, which is duly registered in the Government books. To complete the process you have paid transfer duty, and a further sum for stamps and legal expenses, bringing up the amount to close upon £100. If you have not received them before-for they are no use to raise money upon as in England-you now obtain possession of your title deeds, wonderful documents in the original High Dutch, supposed to contain particulars of any servitudes affecting adjacent properties or your own. Servitudes are either reservations made by Government at the time of the original grant, or by the owner at some subsequent partition of the property; and owing to changes in the physical conditions of the country, in agricultural usage and in the mode

of life, especially as society emerges from a state of barter, are often as vexatious as they are sometimes of doubtful utility. They comprise all kinds of things, rights of way, wood, water, grazing rights, and perhaps to a stranger the most curious of all, the right of access to the family burying-place upon the farm, for the purpose of interments, a mode of sepulture to which old families cling with some tenacity, even in districts where there are public cemeteries. I recommend you to look carefully over these documents, and spell them out at your leisure, as the patois of to-day is widely different from the legal language of Holland, to say nothing of the strange caligraphy, and probably none of your neighbours will be able to help you. The first thing that strikes the eye on looking at the title deed is a diagram or plan of the estate, a copy of the original diagram preserved at the Deeds Office in Cape Town. From this you will obtain a general idea of the shape of the property, but further than this you need not pay any attention to it. Should circumstances render it necessary for you to make inquiry, you will speedily ascertain that the diagram in question is of little use in determining the true position of the beacons, or the extent of your ground, being probably the result of the observations of one of the early surveyors, in days when accuracy was not so easily attainable, nor of so much consequence as at the present time. However, you are in happy ignorance of all this, and have just selected a surveyor and induced him to promise a visit, when a road-rate notice is placed in your hands. You may have also heard some whisper about the approaching collection of arrears of sub-guarantee under the Railway Act, though perhaps it is hardly fair to allude to this, now that the railways have become the property of the colony and sub-guarantee is abolished. I am afraid that by this time you will have begun to doubt your wisdom in becoming a land owner in the Cape Colony, to the resources of which you may possibly begin to think you have contributed in one short twelve months, more than has been wrung from you in the Old Country in the space of as many years.

Under such circumstances it is no wonder that settlers at the Cape are few and far between, while colonies imbued with a more liberal spirit,

advance rapidly on the road to prosperity.

After this digression, I must return to my subject on a future occasion.

## Judge Watermeyen and his Writings.\*

It is almost impossible to glance over these literary remains of the late Judge Watermeyer without feeling how great was the loss sustained by the Cape Colony through the premature death of her

most gifted son.

These "selections" from his writings are full of the careful research and accuracy of eloquent statement for which the late Judge Watermeyer was always remarkable. The chapters on Colonial history are especially well worthy of preservation; and the "Notes on Roman Law," "Community of Property," and the "Law of Inheritance at the Cape of Good Hope," are noticeable for their lucid arrangement and the simple language in which the most abstruse arguments are ably and most convincingly conveyed. compilers of this work have abstained, however, from revising his most celebrated forensic speeches, and we have but the barest outline furnished to us of what a power he was both on the bench and at the bar, on the platform and in the forum. In a word, one-half of this publication is taken up by early poems and clever translations, whose very interest must be dependent upon the time of life when they were composed. As a natural consequence we have no clue to the external influences at work in moulding his thoughts and fancies and inspiring his serious muse. What would perhaps be considered morbid at seventeen would probably meet with more approval at the ripe age of fifty; and the sarcasms and epigrams reproduced from Martial, are strangely out of place at the conclusion of a number of melanchoiy and weird translations from Uhland and Schiller.

In a future edition we should like to see the growth of this great thinker's mind made evident in his collected writings, by printing them in the order in which each noticeable paper or poem was composed. In this way, we should find that from his earliest years, he evinced a strong bias for literature and intellectual tastes,—and early inspired in his teachers the brightest hopes of his future success and professional reputation. His biographer bears witness to his extraordinary powers of memory, a matter of the utmost importance in ripening a scholar and paving the way to success at the bar; and states that learning seemed to be no effort to him, as he appeared to reach by some swift intuition the results which others

gained only by long and laborious efforts

At the age of seventeen he left his school (where he was under the care of the late Rev. Edward Judge) for the University of Leyden, "carrying with him high attainments as a scholar, and a still more valuable possession—a mind so trained in habits of accuracy and precision of thought, that he could not be satisfied with anything loose or slovenly

<sup>\*</sup> Selections from the writings of the late E. B. Watermeyer, with a brief sketch of his Life. Cape Town: J. C. Juta & Co., 1877.

in any department of knowledge. The accuracy with which he always expressed himself in ordinary conversation, and the directness and simplicity of his written sentences, testify to the clearness with which he had learned to discern the objects of his intellectual vision.'

Between his birth in 1824, and his death in September, 1867, Mr. Watermeyer crowded so much solid work into his forty-three years of life, that he was called to the bar at the age of twenty-three, took a leading position before he was twenty-five, was a prominent Member of Parliament in 1854–5, and became a Judge

of the Supreme Court at thirty-one.

After the establishment of the Board of Public Examiners in Literature and Science in 1858 he became its first President and Examiner in Law; and had he lived to see the incorporation of the Cape University he would undoubtedly have been elected by universal consent to the dignity of being its first Chancellor. Unhappily, however, for himself and his friends, his heart was too deeply sympathetic with the troubles and cares of others, not to suffer injuriously from the strain put on his feelings and imagination by great personal sorrows. A martyr to gout, he had such a strong sense of duty, that he never gave himself the rest necessary sometimes to men whose mental activity is far in excess of their bodily strength; and as he grew in years, and those whom he loved best in this world dropped away from him into the grave, he seemed to lose all interest in his surroundings, and rapidly sunk into a perfect wreck of his former energetic and determined self. The death of his beloved brother Fred\* in 1864, from overtasked brain and want of rest, overwhelmed him with the deepest grief; and when his gentle devoted wife was torn from him somewhat unexpectedly in 1865, while accompanying him on the Beaufort Circuit, he was perfectly stunned by the suddenness and severity of the blow. In vain he tried to recover his wonted cheerfulness. His heart was too deeply stirred by the memory of his losses; and while he brooded and brooded in stony despair, his health was undermined by the necessity of attending to the cares and wants of this work-a-day world, when all his interest in it had utterly gone out of his life. early age of forty-three, his ripe judgment and trained intellect were lost to the Cape Colony, and the Colonial Bench sustained a loss that is extremely unlikely ever to be made good.

In the words of his biographer, the number and variety of the things in which this able and industrious son of the soil took an interest was truly remarkable. "His taste in literature was severe and at the same time catholic. His mind was of that rare order which combines philosophic breadth with minute and delicate accuracy. To natural talents of no ordinary character he had added a careful and laborious discipline of study. There were in him no signs of that common and fatal disproportion between the natural endow-

ment and the superadded culture. The action of his mind was not cramped by the mass of learning. It moved freely and vigorously. It wore its weight of learning 'lightly as a flower.' One scarcely knew which to admire most in casual intercourse with him—the accuracy of his knowledge, the justness of his thoughts, or the perfect elegance and finish of the words in which his thoughts clothed themselves. Men of equal scholarship, or of equal professional accomplishments, or of equally sound judgment, or of as wide a range of intellectual sympathies, it may not be difficult to find; but men in whom these things were combined and blended as they were in Mr. Watermeyer, are rarely found even in the great centres of the intellectual life of Europe."

In the opening "paper" on "The Geographical Discoveries of the 15th Century in their relation to general History," composed in 1856, the Judge points out how the onward march of Saracen and Turk upon the Christian world was baffled at the very moment when they appeared to be about to crush everything before them—, by the discovery of a maritime route along the North-western African coast, which was to divert the trade of the Levant from Venice, and cause the various potentates on the African and Indian coasts, despite the Moorishoppos ition, to permit the entry of the Portuguese into the portals of glory and of wealth, and secure greater treasure far, and fairer fame, for the European world of Christianity and civilization.

"The battle of Christianity and Moslemism, lost ages past in the Holy Land, lost in the fall of Constantine's Empire, lost more recently in Southern Italy and in the Mediterranean,—everywhere lost, where there had been a conflict, save in Portugal and in Spain—was renewed in the Red Sea and in the Persian Gulf and the Indian Ocean, and was at length decisively won. The change of the route of the traffic wrought the victory. If we follow history in the supposition that Venice had remained queen of the waters, that the victory of Portuguese commerce over the Red Sea and the Levant had not been obtained, the prospect is appalling indeed. Irresistible by land, and with unequalled resources for naval strength, in the command of all the commerce of Asia and of Europe, the Ottoman Empire held the key, and had the means to enforce the claim of universal dominion.

"But the impending tempest did not break over devoted Europe, It was dissipated suddenly—noiselessly. The success of De Gama's expedition was the salvation of the world from the curse of Mahommedan domination.

"From the fifteenth century dates the modern history of the world. The age which, on the final decay and ruin of the remnant of the Empire of the Cæsars, beheld the first printed book—which witnessed the birth of European literature as distinguished from that of Greece and Rome,—which was adorned with the divine art of Michael Angelo, of Rafaelle and of Titian—which fostered the germ of the great conflict of the Latin and Teutonic Christianity; a con-

flict to endure for all time as a living test of the grandeur and weakness of the human intellect-which saw the earliest and successful essays of navigation fitly so called, and wherein a new world sprang into existence, while the political labyrinth of modern statecraft was planted in the old-is the beginning of the history of the time wherein we live. All the races before seem equally ancient in their thoughts, actions, and aspirations—habitants more of an imaginary world of beings similar to ourselves, than of the actual world in which we live and breathe. And perhaps the most remarkable event of that wonderful age, in its effects on the world, was the discovery of Diaz, perfected by De Gama: the preservation of the liberties of mankind from the sceptre of Islamism, of the intellect from the fanaticism of the Koran, of their infant printing-press from the censorship of an Omar or an Amurath. If a worthy future be in prospect for this country, now that its resources are being developed, its liberties unshackled, its education redeemed from neglect-it cannot be utterly useless that the view of our rising youth be directed to the entrance of the land which they inhabit into the sphere of civilized knowledge."

In the early history of the Cape, the Judge was always very much interested; and he appears to have burrowed deeply into the musty records of the East India Company, and the dust and rubbish gathered in the office of the Registrar of Deeds. One fallacy he has quite exploded; and that is, that the Dutch ever made any organized or

sincere attempt to colonize this country at all.

The secret of the Portuguese route to India-hitherto jealously concealed from all foreigners-was acquired in 1595 by Cornelius Houtman, and having imparted his knowledge to a company of merchants, he was placed in charge of the first four vessels that touched in Table Bay, and the fruit of that voyage was an alliance with the king of Bantam, in Java-where the Portuguese had no settlement-the foundation of Dutch power in the East.

The success of this voyage led to the formation of trading companies at all the chief seaports of Holland, and eventually they coalesced in 1602 into the Dutch East India Company; and if any stranger is curious enough to visit the Castle, he will find the municipal arms of these six seaports, of Amsterdam, Middelburg, Delft, Rotterdam, Hoorn, and Eukhuysen, quartered in a row over the principal gateway under the belfry, and presided over by the shield of the seven United Provinces of the Netherlands.

"As the Cape of Good Hope became not a colony of the Republic of the United Provinces, but a dependency of the 'Netherlands chartered General East Indian Compay's formercantile purposes,and as to this fact, principally can be traced the slow progress, in all but extension of territory, of a country which was settled by Europeans within thirty years of the time when the Pilgrim Fathers, the founders of a mighty Empire, landed at Plymouth to plant democrative institutions and European civilization in the West,- it is necessary in the prosecution of our inquiry, to examine at once into the constitution and objects of the rulers to whom this land—in which we now have freedom, but where the word was, at the commencement of this century, scarcely understood—was subjected

from the date of its original occupation by Europeans.

"The object of the Dutch East India Company was traffic, not colonization. Holland never was a colonizing nation, sending forth a surplus population requiring relief, to cultivate new lands, and to extend the national name in connection with the parent country. Commercial depôts were required, but colonization was discountenanced. Colonists, except in subserviency to the wants and interests of monopolist mercantile associations at home, were not tolerated,

whether in their Eastern or Western Possessions."

It was not, however, till the arrival of Dr. Van Riebeek in 1651 that this Company made up their minds to raise fruit and vegetables near Table Bay; and sent out an expedition fully equipped. From the Governor's proceedings it will be seen that there was no prospect or intention of colonization here. A place of call for refreshments and for recruiting the sick was required for the Company, and as far as should be practicable, to the exclusion of all other Europeans. The French, English, Danes, and Portuguese, were especially to be anticipated in the formation of a permanent settlement in Table Bay, though in the first instance, active resistance was to be opposed to the Portuguese only, as the declared enemies of the State. Other Europeans, though not to be resisted, were to meet with every discouragement. As to the natives, all diligence was to be applied to obtain their affection and confidence. They were to be treated with the utmost kindness and favour; and any attempts to injure them in their persons or property were to be most carefully guarded against and severely punished. Van Riebeek, moreover, seems never to have bought or paid for an acre of ground belonging to the natives. He simply took possession of the shores of Table Bay, and coaxed the simple natives to come and trade with him for their cattle -in return for beads, &c. Twenty years after Van Riebeek's arrival—i.e., in 1672, when Albert van Brengel was Governor—the Commissioner A. von Overbeek nominally purchased the coast between and inclusive of Saldanha and Hout Bay from the hereditary Prince Manchangon for the sum of 4,000 reals; and in the following year Hottentots Holland was in like manner bought from the Prince D'houw for a like sum. However, as the 4,000 reals for the lands of the Cape had been settled for in brandy, tobacco, beads, and bread, to the value of 33.17 florins, or about £32 10s. in English money—while Hottentots Holland in the same way had been bought for £7, it is evident that the Dutch got all the land they wanted for a mere song.

The people who came here with Van Riebeek himself were only paid servants of the Company—the men expecting in course of time to be removed to other stations—the officers to be rewarded

Vos. XV.

with more lucrative posts elsewhere. The proposition that any free men or burghers, not in the pay of the Company, should be encouraged to cultivate the ground, was first made about three years after Van Riebeek's arrival. Accordingly it would appear from the Governor's own Despatch (28th April, 1655) that some discharged sailors and soldiers who received, on certain conditions, plots of ground extending from the Fresh River to the Liesbeek, were the first "free

burghers" of the Colony.

The first "burghers" were, in truth, a mere change from paid to unpaid servants of the Company. They thought, in obtaining their discharge, that they had much improved their condition; but they soon discovered the reverse to be the fact—as any one may see by reading the life of Herr Alleman. Nothing can therefore be more ludicrous than the mistake into which Mr. Froude fell when he took it for granted that the ancestors of the Free State and Transvaal Boers were coeval with the well-born burghers of Holland; and when he adjured them by the memory of their ancestors to preserve their independence, and prove worthy descendants of those patriots who determinated to lay their country under water, and destroy their dykes rather than come under the heel of a foreign oppressor. If not quite of the peasant class, it is clear that the ancestors of many Dutch families, when they were not officials, were little better than down-trodden and oppressed soldiers discharged from the ranks, and forced to till the ground, on condition that they only sold their produce to the State, and were debarred from disposing of it to any outsider, until the Government had signified its gracious permission to them to do so.

"The 'free burghers' might buy nothing, except from the Company at the Company's store and price. They were prohibited, according to the caprice of the Governors, from fishing in the bay. They might not supply strange ships, for strangers were to be discouraged. The natural effect of this narrow and tyrannous rule was discontent, amounting often to disaffection. After a time, every endeavour was made to escape beyond the immediate control of the authority. Thus the 'trekking' system, with its attendant evils, the bane of South Africa, was born. By their illiberal spirit which sought but temporary commercial advantage in connection with the Eastern trade—the Dutch authorities themselves, although generally humanely disposed towards the natives, created the system which

caused their oppression and extermination.

"When, however, by the cultivation of the soil beyond a mere garden for vegetables, and the location for farming purposes of the first 'free burghers,' the natives perceived that permanent occupation was intended, and that the Dutch were not satisfied with the harbour and the valley where Cape Town now stands, they became alarmed; and a combination was formed between the several neighbouring tribes to compel the departure of the Europeans. The first frontier war was commenced by the sweep of the colonists' cattle from

the colonial side of the Liesbeek River. This was in 1659. Here the first issue was raised between the native and the European on

the question of land.

"At the conclusion of this first war, the orders were repeated that the natives should be treated with the utmost kindness and in the most conciliatory spirit. But they understood not the kindness by which they lost the land of their fathers and the conciliation of strangers who usurped their soil as lords paramount. An indolent, dirty, and barbarian race, in the lowest stage of degradation of soul and body, they were not so utterly dead in spirit but that they felt and fought for their native land. For this land they battled then. Occasionally, there was a truce. The battle endured till they lost all. The question now cannot be asked—whose is the title? But at least we, the colonists, have no right to claim from the remnant of the descendants of these savages, that their feeling towards us should be one of gratitude. Our duties towards the sons of the former possessors of this soil are great. Do we perform them?"

The same love of land has been at the root of all frontier scares since then. The natives wish for more land on which to fatten and grow rich in herds; while the whites wish to extend their trade, and compress the laws of civilization into a short formula, in every native hut, viz., to fear God, to work for hire, to wear clothes, and obey their magistrates in all things decent and in order. Not, however, until the principle of tribal tenure is exploded, and each industrious native is encouraged to invest in land of his own, can we hope to get the more intelligent blacks on our side, in any attempt to subvert the barbarian influences of the petty chiefs and bloodsucking witch-

doctors.

In this queer fashion the settlement grew in spite of itself, the Company protesting always against any further encroachment so as to avoid reprisals, and then being forced by these forays to follow up their advantages by annexing the land. In a word, the settlers on the frontier took the law in their own hands, and compromised the Company by their successes. When the Government scolded them, or ground them down by repressive and illiberal orders in Council, the Burghers or Boers were driven to the verge of rebellion, and trekked away into the wilderness rather than submit to any legal restraint. It is only within the last seventy years that the Colony may be said to have had a fair start as a plantation, and for this we are indebted to the surrender of the Colony in 1795 by Commissioner Sluysken, and the investigations and reports of De Mist to the Batavian Republic from 1803 to 1806. Had the English fleet under Admiral Elphinstone and General Clarke not arrived at a propitious time to relieve the country from the feeble yet oppressive misrule of the once mighty mer-

chant monarchs of the East, Judge Watermeyer is of opinion that "it is at least historically probable that although the Dutch flag may have continued to wave on the fort at Cape Town, from Hottentots Holland to the Zuurveld, where the Boer already held possession, and throughout Swellendam and Graaff-Reinet, the standard of independence would have been successfully raised and a free State would have been established on the ruin of the Company's sway before the close of the last century. The Republic of Potgieter and Pretorius would have been anticipated by fifty years, and within the

limits of the old Colony."

In this connection, and as a prelude to passing events in the Transvaal and elsewhere, it is important to note that the extension of the limits of the Cape Colony commenced so far back as 1700; and is now admitted to have been caused by the same turbulent, disaffected, and enterprising class of Boers who have recently been talked over by Sir Theophilus Shepstone. "If the Government of that day followed into the country, where the trek-boers had found water and pasturage, they accepted its sovereignty; for thus were they united with their brethren and friends, and their Church. They treated with contempt the injunctions that they should penetrate no further into the interior. Without the commands of Government and against these commands, they took signal vengeance on such of the Hottentots and Bushmen whom they had expelled from their haunts as ventured depredations on the spoiler. The Government never ceased to urge humanity and to threaten high displeasure on those occasions. But the passions of these pioneers—we dare not say of civilization—once aroused, threats were powerless; for ability to enforce them did not exist. These emigrant Boers-for the emigration began not in 1837, as is idly asserted for political reasons, but before the commencement of 1700-knew that they were followed by the sovereignty of the Dutch Government, only from a fear lest an independent European Power should be established in too dangerous proximity to the Company's possessions. Thus the Colony presented the paradoxical aspect of two widely different kinds of burghers: the one in slavish subjection, the other in reckless freedom, under a Government ready to crumble to pieces at the first shock, - and yet overbearing as it was impotent. The effects of this pseudo-colonization were that the Dutch, as a commercial nation, destroyed commerce. The most industrious race of Europe, they repressed industry. One of the freest States in the world, they encouraged a despotic misrule, in which falsely called free citizens were enslaved. These men in their turn became tyrants. Utter anarchy was the result. Some national feeling may have lingered; but, substantially, every man in the country, of every hue, was benefited when the incubus of the tyranny of the Datch East India Company was removed. Since then, the advancement of the Colony, both under an English and a brief Batavian Republic administration, has been as rapid as that of any in the world. So great has been the progress—so utterly different is the condition of the inhabitants—so much has in the intermediate sixty years been effected—that it is with incredulity, and with some effort, that we are compelled to accept the fact that affairs within so short a period

were in the state which our history describes."

From authentic Cape records, Judge Watermeyer also extracted in subsequent papers some very extraordinary specimens of the vigorous barbarity with which Cape Governors carried out home instructions to keep strangers away from the Cape. The capture of the French Frigates Le Coche and the Normandes on their return voyage from Pondicherry—after being especially civil to their captains when first they touched in Table Bay in 1689—is a tale well worth being twice told, but our space is contracted. And so too of the sumptuary laws in vogue in the days of popular Father Ryk Tulbagh; nothing can well be more curious in their combined stringency and absurdity; and in the hands of the late Judge they meet with but little mercy

or sympathy.

Readers who are anxious to know the precise expenditure, and to obtain a detailed account of the actual agricultural produce of this Colony in the 17th century, would do well to search the pages of this volume, where the matter is lucidly set forth, and put in a nut-The Government made no roads. Bridges were wholly unknown. Officials drew their salaries; and the defences of the Colony were directed only to external foes; but, if people chose to rear more than they well knew what to do with, they could sell it to the Company at a price fixed by the buyer, and have to pay a percentage of one third to the Attorney-General or Independent Fiscal, as the money passed through his hands. But as for looking after the "trek-boers" as they roved through the country in search of good ground, with water and pasturage, the Government followed the principle of Justice Shallow, and left everything to be settled without too much active interference on their part. Thus at the very moment of Sluysken's handing over the Cape Colony to the English, a large number of malcontents under the noted Pisanie were just on the point of claiming independence, and erecting a free Republic, and must have been very much mortified that their project was so promptly nipped in the bud by General Craig.

The application of Roman law to this Colony is a matter exceedingly well handled by the late Judge, and his "notes" are well worthy of extensive circulation. He is clearly an advocate for the law as it stands, about community of property; and the merits of a notarial antenuptial contract are set forth with much perspicuity and elaboration of details in his commentary on Mr. William Porter's speech on the Law of Inheritance in 1848. Upon this and kindred subjects, the Judge betrays, however, something of a defect that used to characterise his speeches at the bar and his written judgments.

He takes too much for granted that ignorance is the normal condition of most readers or hearers, and floods the ear and eye with a copiousness of detail that is apt to be most wearisome when most brilliantly set forth. Like Dr. Tancred's celebrated lecture on "Water" (which he commenced, by a reference so far back as the days of Moses, who struck a rock and made the water flow) the Judge was rather apt to go too deeply into the well of truth, and keep his audience waiting on the brink an unconscionable time before he

fished up the pearl.

We are grateful, however, to his biographers for publishing much that now appears for the first time in this volume. We should like again to have read over his wonderful speech on the trial of Andries Botha for high treason in leading the Kat River Rebellion; and to have perused once more some of his thoughtful addresses at the Exchange and elsewhere. But the exigencies of the time are too pressing to be ignored. Men seek for something new, and disdain the old. A new race have sprung up who knew not Joseph; and Joseph therefore must be prepared to give up his brethren into that bondage of startling news and sensational paragraphs without which your 19th century man can never be happy. For these reasons the Poems of the Judge will have but little charm. They are chords struck in a minor key, and owe their music to their sadness and melancholy undertones. It is but seldom that he rises to the height of Martial's cynical contempt for Cinna-

> "Versiculos in me narratur scibere Cinna: Non scribit, cujus carminia nemo legit."

Which he himself has translated thus-

Cinna writes satires on me, it is said; Pooh! no man writes, whose writings are not read,

or is touched with the point of the Epigram on "a Brother Author" from the same hand-

Cur non mitto meos tibi, Pontiliane, libellos? Ne mihi tu mittas, Pontiliane, tuos.

Why my last poem I forgot to send?
For fear you'd send me yours—respected friend!

In a future edition we shall hope for less poetry and more oratory, so as to mark more especially our sense of the Judge's loss to the community. Take him for all in all, he was a very remarkable man, and a very gifted scion of a very remarkable family. "One always felt," says the tasteful writer of the sketch of his life, "the man was greater and more powerful than anything he ever said or wrote. His memory is a public treasury to the land of his birth; and his life, although its earthly aspects are closed and sealed, will remain for generations to attract by its lustre, to rouse by its power, and to win by its serene and beautiful exhibition of human excellence."

## Kafir Hursery Tales.

#### THE STORY OF SIMBUKUMBUKWANA.

There was a man whose wife had no children, so that he was much dissatisfied. At last he went to a wise woman (Igqirakazi) and asked her to help him in this matter. She said, "You must bring me a fat calf that I may get its tallow to use with my medicine (or charms—the Kafir word is Imifizi)." The man went home and selected a calf without horns or tail, which he took to the wise woman. She said, "Your wife will have a son who will have no arms and no legs, as this calf has no horns and no tail." She told him further that he was not to inform anyone of this.

The man returned to his home and told his friends what was to happen. Not long after this his wife bore a child, but it was a daughter and had arms and legs. The man would not own that child, he said it was not his. He beat his wife, and commanded her to take the child away and leave it to perish. Then he went to the wise woman and told her what had taken place. The wise woman said, "It was because you did not obey my command about keeping this matter to yourself, but your wife will yet have a son without

arms and without legs."

It was so. His wife bore another child, which was a boy without arms and without legs, therefore, he was called Simbukumbukwana. He began to speak on the day of his birth. During this time the girl that was first born was growing up in the valley where her mother left her; she lived in a hole in an antheap and ate honey

and "nongwes," and gum.

One day the mother of Simbukumbukwana went to work in her garden and left the boy at home with the door fastened. While she was away the girl came; she stood at a distance and said, "Where are the people?" There came a voice from inside which said, "Here am I." She said, "Who are you?" The voice replied, "I am Simbukumbukwana." She said, "Open for me." He answered, "How can I open? I have no legs and no arms." She said, "My mother's Simbukumbukwana, have legs and arms" (Simbukumbukwana sikama, yiba nemilenze nemikono). legs and arms came on the boy, and he arose and opened for his sister. She went in and swept the floor; then she took millet and ground it and made bread. She told her brother when his parents asked him who did these things to say that he did them himself, and if they should ask him to do them again to reply, "I have done it already." Then she said, "My mother's Simbukumbukwana, sink legs and sink arms." (Simbukumbukwana sikama, tshona milenze tshona mikono). Then his legs and arms shrunk up, and his sister went away. After a time his father and his mother came home; they went in and saw the clean floor and bread ready for eating.

They were surprised, and said to Simbukumbukwana, "Who did this?" He replied, "I did." They said, "Do so again that we

may see you." He answered, "I have done it already."

The next day the woman went again to work in her garden, but the man hid himself to watch what would happen. After a time came the stster of Simbukumbukwana and said, "Where are the people?" (Exactly the same conversation as before). She went in and began to smear the floor; water was wanting, so she sent Simbukumbukwana to the river for some. His joy in walking was great, so that he did not stop at the river, but put the pot down there and continued to go forward. The girl thought he ought not to be so long absent, for the river was close by, so she went to look for him, she saw him walking up a hill far away, and she called to him to return. He would not. Then she sang Simbukumbukvuana sikama, tshona milenze, tshona mikono, and immediately his legs shrank up. Then she was going away, but her father came out and caught her; he kissed her, and said she must remain with him.

Her mother was coming home when she saw something moving on the hill side. She went to see what it was, and found her son. She said, "How did you come here?" He replied, "I came by myself." She said, "Let me see you go further." He answered, "I have done it already." Then she put him on her back and went home, she found her daughter there, and her husband much pleased. The girl said, Simbukumbukwana sikama, yiba nemilenze

nemikono, and legs and arms came on him.

One day his sister and some other girls went to get red clay, and he followed them. When they looked behind they saw him, and his sister got angry. She said to him, "What do you want here?" He replied, "I am going for red clay for my mother." His sister compelled him to sit down, but as soon as they went on he followed; then his sister heat him and left him in the path. After that there was a heavy storm of rain, but none fell where the little boy was. When the rain was over, the other girls said to the one who had beaten her brother, "Let us go and look after the little boy." They went and saw he was quite dry. He called to his sister, "You have beaten me," but she asked him to forgive her. Then he said, "I want my father's house to be here," and immediately it came; he said, "I want the fire of my father to be here," and there was a fire. He said to them, "Now go in, although you have beaten me, there is a house and fire for you." He said afterwards, "I want the cattle of my father to be here," and at once they were all there. That was a nice place, so they remained there ever after.

### STORY OF THE HARI.

ONCE upon a time the animals made a kraal and put some fat in it. They agreed that one of their number should remain to be the keeper of the gate. The first one that was appointed was the coney (imbila). He agreed to take charge, and all the others went away. In a short time the coney fell asleep, when the inkalimeva went in and ate all the fat. After doing this he threw a little stone at the coney. The coney started up and cried out, "The fat belonging to all the animals has been eaten by the inkalimeva." It repeated this cry several times, calling out very loudly. The animals at a distance heard it, they ran to the kraal, and when they saw that the fat was gone they killed the coney.

They put the fat in the kraal a second time, and appointed the muishond (iqaqa) to keep the gate. The muishond consented, and the animals went away as before. After a little time the inkalimeva came to the kraal, bringing some honey with it. It invited the keeper of the gate to eat honey, and while the muishond was enjoying himself the inkalimeva went in and stole all the fat. It threw a stone at the muishond, which caused him to look up. The muishond cried out, "The fat belonging to all the animals has been eaten by the inkalimeva." As soon as the animals heard the cry

they ran to the kraal and killed the muishond.

They put fat in the kraal a third time, and appointed the duiker (impunzi) to be the keeper of the gate. The duiker agreed, and the others went away. In a short time the inkalimeva made its appearance. It proposed to the duiker that they should play hide and look for. The duiker agreed to this. Then the inkalimeva hid itself, and the duiker looked for it till he was so tired that he lay down and went to sleep. When the duiker was asleep the inkalimeva ate up all the fat. Then it threw a stone at the duiker, which caused him to jump up and cry out, "The fat belonging to all the animals has been eaten by the inkalimeva." The animals, when they heard the cry, ran to the kraal and killed the duiker.

They put fat in the kraal the fourth time, and appointed the bluebuck (iputi) to be the keeper of the gate. When the animals went away the inkalimeva came as before. It said, "What are you doing by yourself?" The bluebuck answered, "I am watching the fat belonging to all the animals." The inkalimeva said, "I will be your companion. Come, let us seek for vermin in each other's heads." The bluebuck agreed to this. The inkalimeva sat down; it scratched the head of the other till he went to sleep. Then it arose and ate all the fat. When it had finished it threw a stone at the bluebuck and awakenened him. The bluebuck saw what had happened and cried out, "The fat belonging to all the animals has been eaten by the inkalimeva." Then the animals ran up and killed the bluebuck also.

They put fat in the kraal the fifth time, and appointed the porcupine (incanda) to be the keeper of the gate. The animals went away, and the inkalimeva came as before. It said to the porcupine, "Let us run a race against each other." It let the porcupine beat in this race. Then it said, "I did not think you could run so fast, but let us try again." They ran again, and it allowed the porcupine to beat the second time. They ran till the porcupine was so tired that he said, "Let us rest now." They sat down to rest, and the porcupine went to sleep. Then the inkalimeva rose up and ate all the fat. When it had finished eating it threw a stone at the porcupine, which caused him to jump up. He called out with a loud voice, "The fat belonging to all the animals has been eaten by the inkalimeva." Then the animals came running up, and put the

porcupine to death.

They put fat in the kraal the sixth time, and selected the hare (umvundla) to be the keeper of the gate. At first the hare would not consent. He said, "The coney is dead, and the muishond is dead, and the duiker is dead, and the bluebuck is dead, and the porcupine is dead, and you will kill me also." They promised him that they would not kill him, and after a good deal of persuasion he at last agreed to keep the gate. When the animals were gone he laid himself down, but he only pretended to be asleep. In a short time the inkalimeva went in, and was just going to take the fat when the hare cried out, "Let the fat alone." The inkalimeva said, "Please let me have this little bit only." The hare answered, mocking, "Please let me have this little bit only." After that they became companions. The hare proposed that they should fasten each other's tail, and the inkalimeva agreed. The inkalimeva fastened the tail of the hare first. The hare said, "Don't tie my tail so tight." Then the hare fastened the tail of the inkalimeva. The inkalimeva said, "Don't tie my tail so tight," but the hare made no answer. After tying the tail of the inkalimeva very fast, the hare took his club and killed it. The hare took the tail of the inkalimeva and ate it, all except a little piece which he hid in the fence. Then he called out, "The fat belonging to all the animals has been eaten by the inkalimeva." The animals came running back, and when they saw that the inkalimeva was dead they rejoiced greatly. They asked the hare for the tail, which should be kept for the chief. The hare replied, "The one I killed had no tail." They said, "How can an inkalimeva be without a tail?" They began to search, and at length they found a piece of the tail in the fence. They told the chief that the hare had eaten the tail. He said, "Bring him to me." All the animals ran after the hare, but he fled, and they could not catch him. The hare ran into a hole, at the mouth of which the animals set a snare, and then went away. The hare remained in the hole for many days, but at length he managed to get out without being caught. He went to a place where he found a bushbuck (imhabala) building a hut. There was

a pot with meat in it on the fire. It take this little piece of meat?" The bushbuck answered, "You must not do it." But he took the meat and ate it all. Afterwards he whistled in a particular manner, and there fell a storm of hail which killed the bushbuck. Then he took the skin of the bushbuck, and made for himself a mantle.

After this the hare went into the forest to procure some weapons to fight with. While he was cutting a stick the monkeys threw leaves upon him. He called to them to come down and beat him.

They came down, but he killed them all with his weapons.

[This story terminates so abruptly that I have little doubt about its being merely a fragment. The version here given is only one of several that are commonly told. There is a story very similar to this, in which a pool of water is guarded by different animals in turn, all of which are deceived by the jackal; but I have not yet succeeded in getting two versions of it exactly the same.]

Victoria East.

# Damagaland and Great Hamaqualand.\*

BY W. C. PALGRAVE.

In round numbers it may be stated that Damaraland has an area of 100,000 square miles. Of these 20,000 may be struck out as useless or unknown, coast desert, and other barren tracts; 35,000 square miles are taken up for commonage, and of the remaining 45,000 square miles, one-third should be set aside for the occupation of Berg-Damaras and Bushmen, and those Namaquas, who at the

present time, are recognized inhabitants of the country.

In the 30,000 square miles remaining all those who know the country agree that farms for at least four hundred families might be found, and some of them with sufficient water to be sites for villages. My own observation leads me to the same estimate, although I am by no means certain that permanent waters could be found for so many "places." I think, even for stock-farms, and few could be made anything else of, one-half of them would require to have dams constructed.

Suitable pasture is everywhere abundant for oxen, and although the northern part of the country is considered too richly grassed for

<sup>\*</sup> These notes are taken from the very valuable and interesting report of Mr. Palgrave, who at the request of the Cape Government proceeded last year to the country north of the Orange River, both above and below Walwich Bay, visiting the various principal Chiefs and tribes desirous of coming under Colonial rule. The report has just been presented to Parliament, accompanied by a large volume of photographs, illustrative of the features and character of the territory visited and its various products. A copy of the volume of photographs, we are given to understand, has also been presented to the South African Public Library.

sheep and goats, there are considerable tracts of "veldt" like the Karroo, in the Colony, where the Cape sheep is known to thrive admirably, in which it is already in contemplation to place the Merino.

Western and North-western Damaraland, or the Kaoko, is, however, essentially a cattle-breeding country, and when its waste pastures are utilized, should be able to supply four or five thousand

oxen annually to the colonial market.

For many years it was held in the highest estimation by the Damaras, and I am at a loss to understand how they came to abandon its healthy, bracing highlands for the plains they now occupy, and

desire to retain for their exclusive use.

Mr Francis Galton, who travelled in Damaraland more than twenty-five years ago, met with natives old enough to remember the time when the Kaoko was full of Damara cattle posts. writes:-"It appears undoubted that seventy years ago not a single Damara existed in the parts where I had been travelling, but that they all lived in the Kaoko, while tribes of Bushmen and Ghoudamap possessed the entire country between the Orange River and the Ovambo, excepting only the Kaoko on the north-west, and the central Kalahari desert on the east."

And I have already pointed out that the Damaras lived in the northern part of the Kaoko till quite recently, when they sought a refuge from the predatory attacks of members of their own nation by crossing the Cunene, and settling amongst the tribes subject to

the Portuguese.

Much of the country is still unexplored by Europeans. The few who have attempted to find in it less distant hunting grounds than

those to the north-east have invariably returned disappointed.

They report a well pastured country, such as I have described, mountainous and full of fountains, with no other inhabitants than here and there a few unusually wretched Berg-Damaras and Bushmen. The mountain ranges lie nearly north and south. In the coast desert tract they are all primary rocks. In that next adjoining, these are covered with a series of sandstones in nearly horizontal strata, which further eastward are capped with limestones. Each tract has its peculiar vegetation. The gigantic, weird-looking aloe and euphorbia of the coast desert tract is succeeded by the dwarf bush and scrub so characteristic of the Karroo, whilst further east dense patches of mimosas, almost hidden in the rich profusion of rank grass, alternate with open glades and forests of thorn-trees. The highest altitude is reached between the 16th and 17th degrees of east longitude when mountain ranges cease, and the country eastward slopes gradually towards the great central basin.

Indications of copper abound all through the country, and the Ovambo, who are the workers in this metal, point to several localities in the Kaoko whence, tradition states, in former times, the ore was brought from which the pure metal was smelted. At

present they obtain their supply from the Bushmen at Otave, who quarry it out of enormous doposits, which exist there of surpassing richness. The reduction of this ore by the Ovambo is assisted by the use, as a flux, of the ash of a tree met with in the country.

Twenty years ago, copper prospecting parties were sent to Damaraland from this Colony, but for some reason unexplained they confined their explorations to the country south of the Zwachaub, where, although indications were everywhere met with, no promise of a mine was afforded within a reasonable distance of the coast.

The Walwich Bay Mining Company, however, in spite of the two hundred miles they had to transport their ore, worked the "matchless mine" for several years, and only abandoned it when the breaking out of lung-sickness in the country made it impossible any longer to procure oxen for their transport service.

Between the Zwachaub and ¿Omaruru indications of copper are found much nearer the coast, and there can be no doubt that a careful search would be rewarded by the discovery of more than one

"centre" which might be worked with profit.

With respect to other metals and minerals, I may say that I have been shown native lead which, it was said, was found in the Kaoko; and have received accounts which, however, require corroboration, of gold found some years since in a periodical river near Bokberg, and later at the mouth of the Zwachaub.

But metals and minerals are not of any greater account to the future welfare of the country than the trade with the interior tribes, which must grow more and more important as the "Reserve," becomes occupied by a population in which the European element is certain to predominate.

Even supposing that ostrich feathers cease to be in such great demand as they have been for some years, their collection will always be remunerative; whilst ivory, which is the great product of the country the "Reserve" skirts, is likely to grow yearly into greater

demand.

The valley of the Tonka swarms with elephants, as does the country outside the western boundary of the Portuguese province of Mossamades. Both countries are especially adapted for the native hunter, who will soon commence the work of slaughter, for what intercourse with white men has done to convert the pastoral Damaras into successful hunters it is already doing in some measure for the Ovambo and the tribes living on and beyond the Okavango Kiver.

For many years past a large trade in ivory has been carried on by the Portuguese with the tribes, little known to us, north of the Okavango; but now a disposition is shown by the Damaraland traders to seize on a part, at least, of this trade for themselves, and, as I write, Mr. Eriksson is journeying to Lebebes with the object of

establishing commercial relations in that part of the country.

The amount of ivorv collected by the Ovambo tribes is not large,

although elephants are numerous, but now that the clumsy hoe-like weapon, used by them for ham-stringing the elephant, is being superseded by the rifle, there is every probability that the ivory trade will grow into importance. I must not forget, too, to mention that the Baobab is found in great numbers on the northern part of the Kaoko, and the western part of the Ovambo country, and if, as it has so often been asserted lately, its fibre is so valuable for paper making, some promise is afforded that before long the trade of that country may be increased by a new industry.

Whilst on the subject of Ovambo products, I have a few remarks to make on the character of the people. Those we call the Ovambos are a number of tribes having distinct names, although most likely, as they speak but different dialects of the same

language, belonging to one family.

Like the Damaras they are nearly black, and in feature have the usual characteristics of the Kafir race. They are moderately rich in cattle, possess no sheep, and only a few goats, and those of a very dwarfed breed. They occupy a small but exceedingly fertile tract of country, bounded by Damaraland and the Cunene River and the fourteenth and eighteenth degrees of east longitude; a limited area for so many people, yet as large a one as they can find suitable for gardens, on the produce of which they almost entirely subsist. They grow Kafir-corn, millet, and maize, two or three kinds of beans, ground-nuts, pumpkins and tobacco.

The following are the names of the different tribes, with, as far as can be ascertained, the population of each:—I. Avare, 2,500; 2. Okafema, 1,500; 3. Ovaquanyama, 30,000; 4. Ovambarandu, 4,000; 5. Great Ombandja and 6. Little Ombandja, 15,000; 7. Orundu Komutwe, 4,000; 8. Okaruthe, 6,000; 9. Ovaquambi, 5,000; 10. Ovangandjera, 10,000; 11. Ovambo, 20,000. Total,

98,000.

Each tribe has its hereditary chief, whose government is a despotism, with the exception of the Orundu Komutwe, who are

Republicans.

They respect each other's boundaries, and generally live on terms of friendly intercourse; but they are suspicious of strangers, and particularly hostile to white men from the Portuguese provinces,

who, in consequence seldom visit them.

About seven years since the Finnish Mission sought to establish four stations in the country, and made choice of the Ovaquambi, Ovangandjera, Ovaquanyama, and Ovambo, to commence their labours amongst, but the result has not been satisfactory, all but the latter having behaved so disgracefully, that the missionaries have had to abandon their stations and seek a refuge amongst the Ovambo, where the whole of the mission resides at present.

Beyond these tribes of Ovamba, to the north-west, are others of whom but little more is known than that they do a considerable trade in ivory with the Portuguese, chiefly from Loanda, who seem

to have more confidence in them than in the Ovambo tribes, and

evince it by moving freely about the country.

The Portuguese use neither vehicles of any kind, nor pack animals. On leaving home, the trader is accompanied by as many servants as are required to bear his packages, and if the number is not sufficient to transport the ivory back to the coast, more bearers are purchased. The price paid for a bearer is small, as so many facilities are afforded for his escape along the road, and besides it is understood by the parties to the sale that the trader's property in the man ceases at the end of the journey.

The poor wretch is really purchased out of slavery, and is infinitely better off than before. He probably accompanies the trader on his next journey, as a free man, and soon finds an opportunity if he

wishes it, to join his tribe.

The trader from Loanda or Benguela, and the trader or hunter from Damaraland meet and exchange courtesies on the Okavanjo River, and very soon, if the attempts to divert the trade of that region to the south are successful, as they doubtless will be, we shall hear of their meeting much further north, on rivers, and amongst tribes, at present unknown to us.

With the mention of the Bastards, I believe I have enumerated all the different tribes and people to be found in Damaraland, and

their numbers may be compared in the following list:-

anibers ma	, ,,	OIII Pa	ii cu iii	CIIC	TOTTO VV III	, ,,,,,,,	•
Herero or					,	•	85,000
Houquain		erg Da	amaṛas		•	•	30,000
Bushmen		•			•	•	3,000
Namaquas		•	•	•	•		1,500
Bastards	•	•			•	•	1,500
Europeans	and	other	whites	(no	t includi	ng	
Boers)	•				•		150

Total. . 121,150

The trade of the country may be said to be confined to ivory, ostrich feathers, and cattle, although but little interest is taken in the latter trade. A few hides and skins are exported, but the quantity is too small to require notice. As far as I have been able to ascertain them, the shipments for the last two years to this Colony from Walwich Bay have been as follows:—In 1875, ivory, 32,000 lb.; ostrich feathers 5,800 lb.; nad in each of these years about 3,000 oxen have been dispatched overland to markets within the Colony. The gross value of each year's exports may be estimated roughly at £45,000, a small amount, when we consider the immense extent of country placed under contribution.

Those actively engaged in this trade believe that it is not capable of any material extension, and I am inclined to this opinion; for although a more settled government will afford increased protection,

and enable the trader, with less risk, to carry his wares to remoter tribes, this will but balance the falling off of the trade nearer home, caused by the destruction of the animals on the existence of which it mainly depends. But it is not on any increase in the supply of ivory and ostrich feathers that the future welfare of the country depends, so much as on the peaceful occupation of its almost uninhabited parts by an industrious population content to look to their flocks and herds for alivelihood, and to the effect of the example of such a population on the neighbouring natives.

The Damaras will, some day, make most excellent flock masters, for although their position and circumstances have not been favourable to their earning a reputation for industry, as herders of sheep and cattle they are unrivalled, and I have often been an astonished witness to the great care and trouble taken by them in the rearing of these.

Some day it will be advisable to establish a Custom House at Walwich Bay, but I am convinced that the interests of the country will be best served now, and for a year or two to come, by

allowing it to remain the free port it is at present.

No ports or harbours are known between Walwich Bay and the Cunene to any natives I have met with, although they know many parts of the coast where ship's boats have landed; but there is a tradition in the coasting trade that some years since a large bay, described as perfectly land locked, was discovered by a whaling crew, in about latitude 19° south, whilst other crews similarly engaged have reported places along the coast so protected by reef that landing may be effected at any time without danger.

In conclusion, Mr. Palgrave thus summarises the benefits and advantages which will result from the country being placed under British control, in accordance with the wishes of its people:—

"It will prevent any future extension of Portuguese boundaries on the South-west Coast, and give to us the key of the whole of

South Central Africa, not at present in their hands.

"It will also in the eyes of the Dutch Emigrants, and others concerned in establishing a Republic there, rob the adjacent country of one of its greatest charms, that of having an independent scaboard and practicable harbour.

"In a short time it would enable us to control nearly the whole

of the interior trade, &c.

"It is the only way of staying wars that otherwise, I am prepared to show, will presently become devastating.

"It is the surest and quickest way of civilizing the people, and thus obtaining a lever for the civilization of the nations beyond.

"And it is the only way by which the unoccupied country can be peacefully prepared for the occupation of settlers, and such occupation made a means of benefiting the country.

"And it is further the only way leading direct to the future peaceable annexation of the country, and its confederation with the

rest of South Africa."

#### THE CAPE

# MONTHLY MAGAZINE.

## South Ifrica, Past and Present.

THE book Mr. Noble has just published is, undoubtedly, the best work we possess on the history of South Africa. The writer has had many advantages over those who have attempted the same task before him, and he has made good use of his opportunities. He is well acquainted with the actors in the more recent scenes he describes, and with the immediate descendants of those who took part in the earlier struggles of the colonists. His position has enabled him to obtain and make use of official documents of importance, and he has put himself in communication with most of the inhabitants of the Colony who could be expected to contribute anything useful on this subject. He has already published a large amount of valuable information, but not in so readable a form as in the work before us. He writes in a spirit of fairness, and though treating of matters which at the time gave rise to bitter feelings, and engendered personal animosities, that have not yet entirely died away, he has carefully avoided a word that would give unnecessary pain to those living, while he has not failed to give vivid descriptions of some of the most exciting portions of our history. We have read his book with pleasure, and confidently recommend it to the general reader, as giving a clear and impartial, as well as an interesting view of events, as far as it goes.

We must remark, however, that the scope of the work is limited. Many subjects which affect the social and political condition of the Colony, are either very briefly noticed, or passed over in silence. We find little or no reference made to the position of the coloured classes within the Old Colony, the emancipation of the slaves, the relation between the Dutch Farmers and their Hottentot servants during the first five and twenty years of the present century, and the formation of Missionary Institutions and their results. Mr. Noble says nothing of the labour question, and next to nothing of the commercial

<sup>\* &</sup>quot;South Africa, Past and Present: A short History of the European settlements at the Cape," by John Noble, Clerk of the House of Assembly of the Cape Colony. London: Longmans & Co. Cape Town: J. C. Juta.

Zuid Afrika, zijn verleden en zijn heden: eene Beknopte Geschiedenis van de Europesche Volkplantingen aan de Kaap, door John Noble, Griffier van het House of Assembly, de Kaapkolonie. Uit het Engelsch. Amsterdam.—J. C. Schröder, 1877.

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history of the Colony. An allusion to the great Rix-dollar controversy—to the formidable opposition to the construction of hard roads—and a few other matters of a like nature, would throw a great deal of light on the character and state of enlightenment of the colonists at the time. We find no reference to the progress of Education, nor any account of our Educational system, nor is our attention directed to the late rapid spread of the English language, although we have a description of the successful measures adopted by the Dutch Government in stamping out the language of the French refugees. The difference in the modes of taxation in the different States is not alluded to, nor do we hear of the gradual growth of a system of jurisprudence founded upon Roman-Dutch and modified by English law. The information given is highly interesting and valuable, but the omission of some at least of these subjects appears to us to leave

the narrative incomplete.

Mr. Noble does not dwell at any length on the condition of the Cape Colony in its early stage, when it was simply a factory of the Dutch East India Company, but gives an excellent summary of the principal events during that period, referring his readers to the late Mr. Watermeyer's well-known Lectures for fuller details. The parts of the work on which the greatest pains have been bestowed, and which give to the book its chief value, are the chapters devoted to our Frontier difficulties and Native Policy, the formation of the Independent Dutch States, and above all the trek of the Emigrant Boers. He gives on the whole a fair and impartial narrative of these events. If he is biassed at all it is by a kindly feeling towards the Frontier farmer and a natural sympathy with the Emigrant Boers in the midst of the terrible trials and dangers to which they were exposed. The deeds of heroism they performed and their patient endurance of suffering has inclined him to view some of their proceedings more favourably, perhaps, than a strictly impartial critic would approve, but he always relates facts with candour, and we fear that the sickening account given of the tragedy of Potgieter's Rust and Makapan's Caves will do much to neutralize that sympathy with our fellow-countrymen beyond the Vaal which the story of the cruel and bloody treachery of Dingaan had evoked.

The latter tragedy is well known to all Cape colonists. Retief, the head of the Emigrant Boers, wished to obtain Dingaan's sanction to occupy the then unpeopled lands of Natal. The chief desired Retief to prove his friendship by recovering and returning some cattle carried off by another chief, Sikonyella, when his application for land would be granted. Retief accomplished his application for land would be granted. Retief accomplished his object by enticing Sikonyella from his mountain fastnesses and detaining him as a prisoner until he purchased his release with the restoration of the cattle:—

As soon as Retief had executed his commission by compelling the Mantatee chief to restore the property of which he had plundered the Zulus, he prepared for a second visit to Dingaan, intending to take with him about 200 mounted men to make a demonstration before the chief. Maritz and others, however, disapproved of this, as they doubted Dingaan's friendliness, and feared that he would not let slip an opportunity of striking a blow when he found them, too confident of safety, trusting themselves in his hands, in his kraal and amongst his nation. Maritz, indeed, gallantly offered to go himself, attended by only two or three men, observing that "if they were destroyed, it would be quite enough." Retief then agreed not to issue an order for anyone to accompany him, but left it for such as might please to volunteer for the purpose.

In the beginning of February, 1838, he left the cncampment of the emigrants, who had then crossed the Drakensberg into Natal, and were commencing to separate into small parties about the Blaauwkrantz and Bushman Rivers. His followers embraced the youth and chivalry of the emigrant band, the list containing the names of Greyling, Meyer, Oosthuysen, Scheepers, Jordaan, Hugo, Malan, Labuscagne, De Klerck, De Beer, Botha, Pretorius, Klopper, Grobbelar, De Wet, and Roberts. They numbered about seventy persons, armed and mounted, with thirty attendant "achter ryders," or servants, with led horses. On their departure they received the admonitions of several of their relatives and friends, to be cautious, and however well-disposed they might find Dingaan, never to be unarmed or off their guard.

The wisdom of those admonitions was verified by the appalling events which followed. Dingaan's reception of them was characteristic of a savage barbarian. Base and treacherous, suspicious of his visitors jealous of their power, and dreading the neighbourhood of their arms, yet unwilling to attack them openly,—he massacred them clandestinely. The particulars of their tragic fate have been described in horrible detail, both by the European missionary (Owen), and his interpreter (Wood),

who were enforced witnesses of it.

On the 3rd February, Retief and party arrived at Umgungundhlovu, bringing with them the cattle which they had taken from Sikonyella, An immense concourse of Zulus were assembled to receive them. Dingaan, apparently satisfied and pleased with the recovery of the cattle, feasted his visitors, who exhibited their military manœuvres on horseback, while the Zulu regiments again represented their mode of warfare and dancing. Mr. Owen, at the request of the chief, drew up a document by which he granted to Retief the country between the Tugela and the Umzimvooboo, just as freely as he had granted the same country some time before to Lieut. Farewell, Captain Gardiner, and others of his visitors. Things being thus amicably arranged, on the 6th of February Retief was about to take his leave, when Dingaan invited him and his party into his cattle kraal, to witness a war dance, requesting them to leave their arms at the entrance with their servants and horses. With this request the unfortunate men complied. Unsuspicious of harm, they were seated on the ground, partaking of native beer supplied to them, and witnessing the sham fight of the Zulus, who were advancing in a circle near to them, when suddenly, at a preconcerted signal, an overwhelming rush was made upon the farmers, before they could get to their feet. A message from the chief was at the same time sent to the missionary, assuring him of safety; but from the door of his hut he witnessed the dreadful spectacle of the Zulus dragging their helpless unarmed

victims to the ordinary place of execution, a blood-stained hill, the deathplace of thousands who had been sacrificed to the caprice or fury of the chief. Mr. Owen and the interpreter, together with the American missionaries who were then in Zululand, fearful of other evils at hand, decided at once to leave the country, and after some difficulty were allowed to depart, and happily reached the Bay of Natal, where they

took ship for Port Elizabeth.

Immediately after the massacre, Dingaan sent out his forces against all the emigrants on the eastern side of the Drakensberg. The Zulu army knew their position well, and attacked both the encampments, situated at the Blaauwkranz River and the Bushman River, about ten miles apart, at the same moment. The onset was made before daylight, and many of the farmers at the outposts were butchered ere they awoke, and others only opened their eyes to close them again for ever. The foremost scattered wagons were first surrounded, and the cries of the women and children mingled with the report of the few shots that were fired now and then. So perfectly taken by surprise were the encampments, that not a few of the parties in the vicinity upon hearing the shots, congratulated themselves upon the circumstance, thinking that Retief and his followers had returned, and were firing a salute. No preparation for defence was made until breaking dawn enabled them to see their ferocious enemies in dense masses around them. Then every one flew to arms, and a resolute resistance was offered. Maritz, who was with one party, called the people together, ordered the women to drag the wagons close to each other, and then hastened with a few armed men to meet the foe, who had commenced attacking the wagons in advance of them. Nor was his wife idle; she jumped out of her wagon and quickly followed her husband, carrying in one hand a bag of powder, in the other a bag of shot, and accompanied by her daughter, aged 13 years, also laden with ammunition. Many others of the women likewise ran the gauntlet of the enemy, carrying powder and shot, and encouraging the men. No wonder that their kindlier natures were changed, for the word "mercy" was unknown to their assailants, who barbarously speared old and young alike, seizing even helpless babes and dashing their brains against the wagon-wheels. "Oh, dreadful, dreadful night, when so much martyr blood was shed," is the entry in the journal of one of the survivors; "it was almost unbearable for flesh and blood to behold the spectacle next day, when the mangled corpses of the dead were removed and buried." Throughout the camps a hundred widows mourned for their husbands and their children slain. The township which has since arisen near the scene of the conflict, still bears the appropriate name of Weenen-the place of wailing or weeping.

This was in 1838. Mr. Noble does not give the number of the unfortunate people who were slain on this terrible night, but according to an official statement of their leaders, seventy were murdered with Retief, and three hundred and seventy fell at Bushman River. Let us now turn to the second tragedy, and it is only fair that the whole story should be given to show the barbarous cruelty which was followed by so terrible a penalty. Mr. Noble is now describing what took place in the Transvaal in 1854:—

Hermanus Potgieter (a brother of Hendrik Potgieter, the first com-

mandant) had gone upon a hunting expedition,—elephant hunting and the collection of ivory and ostrich feathers being his chief occupation. He was a rough borderer, who had no compunction about forcibly carrying off anything he found in the possession of natives, and even occasionally made a raid amongst them, capturing their children for barter with the traders from Delagoa Bay and elsewhere. In passing the neighbourhood of a tribe under the chief Makapan, who had suffered from such depredations, they fell upon Potgieter, and barbarously murdered both himself and his party, including some women and children. The families of some other emigrants who had gone to Makapan for the purpose of bartering corn, were also destroyed. Hermanus Potgieter was pinned to the ground, while his savage foes actually skinned him

alive. The fate of the others was equally horrible.

When reports of the massacre reached Potchefstroom, a commando was formed under Mr. M. W. Pretorius, to proceed at once to revenge it. Mr. P. G. Potgieter (a nephew of Hermanus) with a number of farmers from Zoutpansberg and Lydenburg, also marched to the spot, and the two forces, numbering altogether five hundred strong, combined against the murderers of their countrymen. The scene they witnessed, and the proceedings they took, are described in shocking detail in a letter from Pretorius. "Here," he said, "I saw with my own eyes what had been written to me relative to the eruel manner in which the massacre had been effected. The bodies found were mostly of females; one body, that of a tall man, was sadly mutilated, all the fingers, from the tops to the palm of the hand, were cut open, the head was cut off, and the body thrown into the water. Evidently every possible means of torture had been practised upon the victims. At one of the kraals was found melted human fat, in which the hands had been baked on spits. In addition to this we discovered some other tokens of unbridled cruelty, which decency prevents me to name. Whether the people were subjected to these barbarities before or after their death I cannot say. This abominable spectacle, which filled my soul with disgust, induced me to adopt the firm resolution to chastise the barbarians, though I should sacrifice my life in the act."

Makapan and his tribe, in the meantime, had retired, and enseoneed themselves in one of the vast caverns which occur in the limestone formation in that part of the country. Pretorius followed them to this retreat and immediately charged them, but the enemy, driven from their entrenehments, retired deeper into the subterranean recess. extraordinary caves where upwards of 2,000 feet in length, by 300 to 500 fect wide, intersected by several walls, and so dark that no one could penetrate the gloom. The Boers did not consider it prudent to rush into them, and devised another plan to destroy the foe. At a council of war it was resolved to blast the rocks above, and thus erush and bury the Kafirs alive under the ruins. The scheme was attempted but failed, owing to the slatey character of the rocks proving unfavourable to the operations. Orders were then given to besiege the caverns and to reduce the wretches within to the extremities of famine. Patrols kept ward night and day and with their rifles shot down any of the enemy who showed themselves. Pretorius' colleague, P. G. Potgieter, while thus engaged, was knocked over by a bullet fired from the mouth of the cavern. Eight days' elose siege, however, did not prove effectualneither Makapan nor his followers showed any signs of giving way or coming out. It was then determined to block up all the entrances. Fifty spans (teams) of oxen and about 300 friendly Kafirs were employed at this work and many loads of stone and trees were brought up and thrown into the openings of the caverns. At length the pangs of thirst told upon the miserable creatures within, and numbers of them, including women and children, suffering from want of water, sallied forth, but only to die after they had drank a little. At the end of three weeks, the commando could no longer bear the horrible stench of the dead, both within and without the caves, and Pretorius gave the order to raise the siege. The number of the Kafirs who had fallen outside amounted to upwards of 900. Those who had died inside must have been much greater. Makapan and his tribe were well nigh annihilated, and their village or "kraal" laid in ashes. For years afterwards the supremacy of the white man was unquestioned in that part of the Transvaal.

But, as a relief from these horrors, we quote an account of a gallant act of self-devotion which, sad as it is, relieves the gloom of this part of our history. Uys and his party, who were on the west side of the Drakensberg, heard of the disaster which had befallen Retief and immediately followed to render assistance and avenge his death—the English settlers at Natal agreeing to co-operate with them:—

The farmers' movements all along their march were watched by Zulu spies, who adroitly decoyed them into an open basin, where two or three regiments were drawn up in column, and the ravines on all sides filled with others ready to fall upon the rear. The Boers seeing the enemy before them gallantly rode up to the main body until within twenty yards. and then fired, causing them to disperse in confusion. In pursuing, they committed a great mistake by separating into small parties, and the consequence was that they found themselves surrounded. Uys perceiving some of his party in extreme danger, charged against the foe with a mere handful of men, and drove a whole regiment before him; but on returning to join the rest, another large body of Zulus, who had concealed themselves in the gullies on each side of him, rushed upon him and his few brave followers, and killed seven. By this time Potgieter had begun to retreat. Uvs and his son, a youth of about fourteen years old, had as yet escaped unhurt; but whilst the former stopped his horse to sharpen the flint of his gun, the enemy approached and threw an assegai at him, which wounded him mortally in the loins. He, however, pulled out the weapon, and even took up another man, whose horse was knocked-up, behind him; but he soon fainted from loss of blood. Recovering again, he was held on his horse for some distance by a man on each side of him. At last he declared that he felt his end approaching, and desired to be laid on the ground. He then said to his son, and the other men about him, "Here I must die, you cannot get me on any further, and there is no use to try it. Save yourselves, but fight like brave fellows to the last, and hold God before your eyes." Upon this they left him, but not before they saw that to remain longer on the spot would be certain death. After galloping for about one hundred yards, the younger Uys, on looking round, saw the enemy closing in numbers upon his dving father, and at the same moment he perceived his father lifting up his head. This was too much for the feelings of the lad; he turned round his horse, and alone rushed upon the enemy to compel them to retreat, and shot three Zulus before he was hemmed in by overpowering numbers and killed.

Mr. Noble gives a fair account of the reasons which caused the great "trek" of 1834, but properly points out elsewhere that this system originated during the times of the Dutch East India Company, when the inhabitants, unable to endure the tyrannical system under which they then suffered and hopeless of relief, moved away to the interior out of the reach of the authorities, and even established independent republics of their own in defiance of their lawful rulers. The habit is continued along the border settlements to this day, and at the present moment we are hearing of the sufferings endured by a party who some time ago abandoned the Transvaal for regions still

further distant from the inconveniences of civilization.

It is impossible not to sympathize with and admire the brave and simple people who, as they state in their Declaration at Natal in 1839, "had been wandering about for three years, in regions to them unknown, without experience, compass, or guide,—exposed to all obstacles which nature put in their way, by insurmountable mountains reaching the clouds—exposed to serious wants and disappointments—surrounded and pursued by innumerable beasts of prey, with whom they daily had to struggle for the purpose of obtaining food—and without any government or laws, other than such as were deeply ingrafted in their hearts by the mighty finger of the Lord." And who throughout were upheld by a simple childlike faith in their God and his revealed Word,—a trait in their character well brought out in Mr. Noble's book. Very like the chosen people they were in many respects, and so the heathen of the Promised Land found them.

Mr. Noble's account of our own troubles with the Kafirs, while excellent in itself, especially when describing Sir George Grey's policy, generally avoids all matters of detail, so that it does not possess the romantic interest attached to the history of the Emigrant Boers. We must point out, however, that in one or two instances he has made use of isolated passages from documents or speeches without marking them as quotations, which, taken apart from the context, give a different view from what he himself wishes to convey. We shall here give one instance in point. We question whether it was necessary to republish the now forgotten charge against Sir Andries Stockenstrom, of having shot an unarmed Kafir boy, but if it were, we cannot help feeling that in the manner in which it is here told the circumstances are not narrated as clearly with regard to Stockenstrom's conduct as they ought to be. Mr.

Noble writes:-

Unfortunately, all this time the hostility towards the Lieutenant-Governor, created by his evidence before the Aborigines Committee,

continued unabated. The statement made by him relative to the murder of some Kafirs by a commando in 1830, led to a charge being preferred against himself, of having, while on commando in 1813, shot an unarmed Kafir boy, and used expressions manifesting his intention of revenging the barbarous murder of his father. Mr. Stockenstrom emphatically denied the charge, and demanded an investigation. Lord Glenelg directed an inquiry into the matter, and a court, composed of the Governor Sir George Napier, Captain Dundas and Major Charters, after taking evidence on the subject, unanimously absolved the Lieut.-Governor from the odious imputation which had been circulated against him. The facts adduced showed that Mr. Stockenstrom had only shot the Kafir in the bush, as any young officer of one and twenty years, or indeed any officer, would have done under the same circumstances and orders.

The last sentence is in the exact words used by Sir George Napier, but from the context the impression may still be conveyed that Stockenstrom did shoot an unarmed Kafir boy. On reference to the proceedings, and to the whole of Sir G. Napier's judgment it will be found that, acting under the orders of Major Frazer, Stockenstrom, with a party, was engaged near the Blinkwater in driving the Kafirs out of the bush on the banks of that river. That Kafirs were seen by some of the party, and a cry was raised "the Kafirs throw," upon which Stockenstrom and the others fired into the bush. On examining the bush afterwards two Kafirs, armed with assegais, not helpless boys but grown up young men, were found dead. The charge that an "unarmed boy" had been shot broke down completely, and it was not clearly proved that of the three or four shots fired, Stockenstrom's was the fatal one—it might have been, though he declared that he saw no Kafir, either when he fired or afterwards, but that is a matter of little importance. So far was he from allowing feelings of revenge for his father's death to carry him away while performing his duty, it was proved by all the witnesses that the day before the shooting the two Kafirs, he had saved the lives of seven others, who were on the point of being shot in the camp, by running forward and placing himself between them and the pointed guns of the burghers, who were just going to put them to death.

Mr. Noble has touched but lightly on the bitter controversies which arose out of the Glenelg policy, but he has stated sufficient to give us a clear view of what the matters in dispute were. As far as his narrative of the last Kafir war goes, we think that in addition to the mere statement that many of the Hottentot population had revolted and joined the Kafirs, the desertion of the Kafir police and the Cape Mounted Riflemen were matters of sufficient importance to merit special mention.

He does not appear to have quite as much sympathy with the founders of the Orange Free State, as he manifests towards the Voortrekkers to Natal and the Transvaal. But the singular events connected with the Transgariep territory, and the relations of the Boers to the Griquas and the Basutos, which led to the engagement at the

Berea, and ended in the abandonment of the Sovereignty are clearly and well narrated. One portion of this part of his narrative is published now for the first time in any of our colonial histories, and that is the impolitic refusal of Sir Henry Pottinger to give Pretorius an audience at Graham's Town when he had travelled such a weary distance to lay before him the case of his fellow-countrymen. It is not too much to say that the fate of the gallant men who fell at Boom Plaats may in some measure be traced to this ungracious act, which was bitterly resented by the proud and high spirited Boer.

We look upon Mr. Noble's account of the great Anti-Convict Agitation as the most correct that has yet appeared. tells the story simply and with impartiality, but there are one or two points in which he is not quite accurate. Mr. Noble was not in the Colony at the time, and does not thoroughly appreciate the feeling which animated the whole Colony, with but few individual exceptions. There was not a single voice raised in favour of Earl Grey's policy—the only shadow of disunion was as to the continued operation of the Pledge after Sir Harry Smith had declared that he would not land the convicts until he again heard from the Secretary of State. Now the fact simply was, that the colonists had lost all confidence in Lord Grey. He had stated in a public despatch that he would consult the inhabitants before making the Cape a Penal Colony, and, in a private communication, at the same time he informed Sir Harry Smith that he had already ordered convicts to be sent without waiting for areply to that despatch. The convicts to be sent by the Neptune he described as political offenders only; it was found that amongst the cargo there were to be several criminals whose offences the Roman Catholic Priest at Bermuda described as being "certainly very serious." Upon receiving the indignant protests of the colonists, he expressed his surprise that the Colony should object to receive poor Irishmen whom poverty had driven to the commission of agrarian offences, at the very time that he was giving orders to send military convicts (the most dangerous class of criminals for this country) from India, China, and Mauritius. For months he concealed from the Governor himself that an order in Council had been promulgated authorizing convicts of all kinds to be sent to the Cape, and it was only from a paragraph in an English news. paper that the colonists were made aware of his intentions. After Lord John Russell's pledge in the House of Commons that if the Cape still objected, the convicts would be withdrawn, he delayed the final order hoping to tire out the patience of the people. In short, from August, 1848, to November, 1849, he endeavoured to force this Colony to yield to his wishes—and no reasonable man can doubt from the whole tenor of his despatches that one moment's hesitation, one instant's relaxation, of the grim watch held by the Anti-Convict Association over the safety and welfare of the Colony, would have proved fatal to the cause. It should not be forgotten that the colonists were unrepresented. The Governor and his advisers, though lamenting the course

of action adopted by Lord Grey, felt and declared that whatever orders they received from him must be obeyed. What protection had a distant insignificant colony against the will or caprice of a Secretary of State? Who in England would ever hear of its wrongs? How many, we may almost ask, were aware of its very existence? It required no ordinary voice to reach the ears of the great English nation. That voice was uttered through the Pledge. It was through the working of the Pledge alone that the people of England became aware of the gross wrong that was attempted to be England became aware of the gross wrong that was attempted to be inflicted on a loyal colony. At once in the Lords—in the Commons—in the Press—an approval almost unanimous was expressed of the resistance made by the colonists—and a condemnation equally unanimous was passed upon the dictatorial policy of Downing-street. It was the English people through their representatives that compelled Lord Grey at length to yield,—but it was the Pledge that

brought the matter home to the people of England.

Mr. Noble seems to be under some misapprehension as to the time when the Pledge was first put in force. He speaks of it as having been in operation immediately after the great 4th of July meeting, upwards of two months before the Neptune arrived. It certainly was signed before that, but not enforced until after her arrival. He also states that a criminal prosecution of the leaders of the Association was not tried, as possibly no jury would have been found to condemn the popular proceedings of the time; but, he adds, a civil action was instituted, claiming £5,000 as damages for injury caused to the business of one of the parties placed under the Pledge. Now this action,-the well-known one of Letterstedt v. Morgan, and others—was only one of several, and was really an attempt to get a decision of the Court declaring that the Anti-Convict Association was "unlawfully conspiring to coerce and compel the Governor to force away the ship Neptune from this Colony contrary to his duty, and without any warrant or authority of law." It was, in fact, a State trial, a criminal prosecution under the guise of a civil action. The effect of the decision of the court in favour of the plaintiff would have had the worst effect on the people, who had convinced themselves that they were acting within the law, while it would have given a handle to the Governor to put a stop to the meetings of the Association as had already been done to all public meetings out of doors. Indeed it would be difficult to say what steps the Governor might not have been induced to take if the Supreme Court had once declared the acts of the Association to be illegal. That the judges had been consulted by him before the trial, and had already given their opinion on this important point, showed the danger to which the character, liberty, and property of the colonists were exposed at that time. Mr. Noble, in paying a tribute to Mr. Fairbairn's services, says "some of their proceedings he (Mr. F.) admitted were carried to an unnecessary extent; but he urged that

allowance should be made for them." He then quotes from Mr. Fairbairn a passage which certainly does not bear out this statement. Mr. Noble has obtained Mr. Fairbairn's "admission" from a speech delivered in the very heat of the contest, and when he was urging his hearers in spite of difficulty and danger to adhere to the Pledge.\* Upon reading the whole speech, it will be seen that Mr. Fairbairn was alluding to the acts of some individuals and not of the Association, and every article written by him in the public press from that date shows that as far as the acts of the Association were concerned he thought they needed no apology. No man could feel a greater sense of relief than he did when the prolonged struggle was over—but no man was more satisfied of the righteousness of the cause for which he was battling, and of the justifiability of the means by which this Colony won its bloodless victory.

We dare not occupy turther space in referring to the political history of the Colony since the inauguration of representative institutions. Here Mr. Noble is of course perfectly at home; and we must acknowledge the tact by which he gives so much information as to the warfare of parties without offending the keenest partizan. He is always frank and impartial, but by seldom obtruding his own views, he is able to pass over the most treacherous ground in safety. He has carried this conciliatory spirit a little too far in his account of the agitation preceding the granting of the Constitution, and those who approve of the popular proceedings at the time will miss one or two points which would explain much of the feeling and consequent action taken by the people. In one passage his official spirit gets the better of him, and he gives a quiet hint to Obstructionists in the Legislature. Referring to the action taken by the Eastern members on the Kaffrarian Annexation Bill in 1865, he writes: "Never in any Legislative Assembly had the policy of obstruction by a minority been carried on so determinedly as on this occasion, but it was conclusively proved to be an unwise as well as an undignified mode of procedure." We feel sure that every well-wisher to Representative

<sup>\* [</sup>It will be interesting to readers of the Cape Monthly to peruse the utterance of Mr. Fairbairn here alluded to, as reported in the Cape Town Mail of 1849:—

<sup>&</sup>quot;We are standing on the verge of destruction, and in self-defence we are entitled to exert every means in our power, even if we give offence to legal minds, or to the royal mind at home. But I believe that the legal mind and the royal mind of the whole world will approve and admire the course adopted by the people of this Colony. They will say 'you have done what was right, and if in such a terrible emergency you made some mistakes, to err is human, and we forgive it' (cheers). It has occurred to me that we have perhaps carried the Pledge to an unnecessary extent, in refusing to allow private soldiers and their wives to purchase little articles by retail. It was never intended to inflict any suffering upon them. I throw the hint out for cansideration; and I must ask the Association to appoint some members to form a committee with me to give advice to the butchers and bakers. Not that they want to know how to act, for nothing can be more admirable than the stand they have individually made, but some one in whom they can have confidence should go among them and express to each the sentiments and feelings of all, that all may act together."—ED, C. M. M.]

Institutions must regret the growing prevalence of this policy in all Legislative Assemblies throughout the world, from the House of Commons downwards, and must feel that it will finally result in majorities taking measures in self-defence which will have the effect of restricting the freedom of debate.

Once more we recommend this book to the attention of the public, repeating our belief that on the whole it is a good and trustworthy sketch of our colonial history. We are glad to learn that a Dutch translation is to be issued, and hope to see it widely

read and appreciated.

S. R. N.

## The Ebening Star.

Whene'er I watch that radiant star,
Which shines in heaven above,
And, trembling casts its light afar,
I think of thee, my love!

It was but yester eve when we,
Together, saw it rise,
And silent turned, its beams to see
Reflected in our eyes.

Sweet star! whene'er thou shed'st thy light
Upon this darksome way,
Oh raise our hearts, by pathways bright,
To realms of endless day!

Star-led, like those wise men of old, Who journey'd far to greet Their Saviour blest, may we unfold Our treasure at His feet.

### Letters on Banking.

#### I. On the Functions of a Bank.

In order that I may more satisfactorily answer your question, "How shall I select my banker?" (which will be steadily kept in view in these letters), it will be necessary to inquire into some of the

leading features of both the theory and practice of banking.

The first question which naturally presents itself in such an inquiry, is this:—Does the bank fulfil the functions which render its office necessary to the commercial well-being of the country? The answer to this question will only be arrived at through a consideration of the principles upon which the business of the bank is conducted; and as the functions of a bank may be defined with scientific accuracy, any defect in the system may therefore be easily detected.

It must, hwever, be kept in mind, that a doubtful or possibly even a bad system of banking may, for a time, be patched and bolstered to a successful degree by careful management. On the other hand it cannot be forgotten, as it is an unfortunate fact of no singular occurrence, that the best system of banking, is sometimes impaired, and vitiated by imprudent management. It is therefore, of the highest importance to public confidence and security that every bank should be under the management of a competent and trustworthy banker. The management of a bank is to such a large extent a matter of individual judgment, and therefore not subject to any rule, that it is extremely difficult to draw any precise line, within the natural sphere of banking operations, for the conducting of business in detail. The success of this important part of the system, beyond a few general rules, must always be judged of by practical results. It may be incidentally remarked, that generally, a careful banker will have all his transactions so fully secured, as to reduce the risk of possible loss to a minimum; his calculations will be so nicely adjusted, that actual loss will not trench heavily on his capital; in other words a prudent banker will not, on any pretence, yield to speculation.

It may be safely asserted that all the serious difficulties with which the banker has had to contend might, as a rule, be traced to speculation in some form or other. This is an evil to which the banker, from the very nature of his business, is peculiarly exposed, and at no time more than the present has there been greater necessity for the consideration of this subject. There is at the present day a tendency amongst many bankers to widen the sphere of their operations so as to include business, which, properly speaking, does not belong to the functions of a bank. The immediate result of this new business has been to increase the burden of the banker's obligations to such an extent as justly to impair the confidence of

the capitalist.

We shall therefore confine this letter to an inquiry into the functions of a bank, having in view, at the same time, partly by way of practical guide, the system pursued by some of the oldest established banking-houses in England; and as some important questions in relation to bank charges may hereafter arise, the selection of these houses will, in an especial manner, illustrate the effects

of particular charges on the practice of banking.

The principle upon which these old-established banks in England are worked (as far as the system of institutions governing the greater portion of the commercial industry of the country can be summarized in one general principle), is, briefly stated: to embody as far as possible into a recognizable form the credit which exists, apart from their own credit, and to utilize that credit so that it may perform the functions of the ordinary currency of the country. They seek to avoid, even where subject to no restriction, the creation of circulating obligations on their own credit, and endeavour, as far as practicable, to substitute money for the credit of others. This latter object can only be accomplished in cases where the existing credit is fully covered by material wealth. But what is the substance of this credit? It is an ominous term for discussion. The banker is, however, no theorist, and cares but little for subtle distinctions. As far as he is concerned, the term credit simply implies the power to borrow, and the willingness to lend, and where this meaning is not conveyed, the term does not exist. Credit with the banker is therefore borrowing and lending; it may be on the basis of wealth, or of capital.

It will help to explain the functions of these banks, and illustrate their principle of working, if we consider an example of the manner in which a credit may be formed on the basis of wealth. Before this can be done, there must subsist a certain amount of trust or confidence in the person requiring credit. This confidence generally rests on the character and means of the individual. Thus, for example, one individual, A, may sell one hundred pounds' worth of goods to another individual, B. At the time of the bargain, B may not have sufficient gold to pay for the goods, but being well known to A as an industrious, honest man, A is willing to take a bill from B for the amount, due at two or three months after date, on the understanding that, at the expiration of that time B will redeem his bill in gold. The matter now stands, that B has become possessed of the goods and A of the bill. In the course of business A in his turn buys one hundred pounds' worth of goods from C, in payment of which he tenders the bill received from B. But C may be ignorant of the trustworthiness of both A and B, and consequently would not be willing to take the bill in exchange for the goods. There would then occur at this point a complete stoppage; in trade, involving many serious consequences, owing to the failure of B's credit to substitute his bill in lieu of currency. Now the banks of which we are speaking, are so adapted as not only to prevent a crisis in commercial industry, but, as far as possible, to foster and encourage trade.

It is their policy to do so, because it is manifest that the most successful trader will also prove their most reliable customer. A, therefore, takes the bill to a banker, who ascertains the ability of both A and B to meet the obligation, and being satisfied that payment will be forthcoming when the bill becomes due, the banker takes the bill, and in exchange pays to A the one hundred pounds in the ordinary currency, less a fixed sum for his own charges. By this transaction, which is termed the discounting of the bill, A is now enabled to pay C in the ordinary currency.

Now it is important to notice that although A was enabled to pay for one hundred pounds worth of goods, by the discounting of this bill, which he could not otherwise have paid for, the purchasing power of the country has not been increased a single penny by the bill. The bill itself is simply the credit of B in an embodied form, and was unrecognizable as a circulating medium until it came into the banker's hands. The banker substituted money for the bill, thereby utilizing the credit between A and B on the principle with

which we have started.

There is yet another way in which a banker would utilize the credit embodied in this bill, which will illustrate the manner in which a credit may be formed on capital. It has been stated as the reason why A was under the necessity of discounting the bill, that he required money to pay for goods purchased from C of the same value as the amount represented by the bill. But suppose the necessity for the discounting of the bill did not arise in the precise manner which we have detailed, and that instead it arose from A having to make a series of payments, spread over as long a period of time as the currency of the bill. Now it would be inconvenient, unsafe, and unprofitable for A to carry about his capital in his pocket from the date of the first payment to that of the last. The bill is therefore discounted in the way already described, before A makes the first of his series of payments, but instead of taking away the proceeds A opens an account with the Bank and there deposits the money to his credit. A is therefore intrusted by the banker with a supply of cheque forms, specially adapted for the purpose, by means of which he is enabled to make his payments from time to time as required, and is thereby saved the inconvenience and risk of carrying the money in his purse. This transaction is known as the opening of a cash credit with the bank; and although it originated primarily in the credit upon which the bill is founded, it is, as far as the bank is concerned, quite a separate transaction. The credit out of which the bill arose was based on the trust and confidence which existed between B and A; that on which the cash credit is founded rests on the confidence which exists between A and the bank. It is precisely the same, to use another example, as the credit which would exist between the bank and a person receiving an official salary or £,1,500 a year, which he deposits in a cash credit account with the bank. Supposing this person to be a professional man, he is prevented, we shall say, from investing his capital because he must live on his salary during the year. It would be unsafe and unprofitable to have the money in his own keeping; he therefore deposits it in the bank, and draws upon it from time to time in the manner already men-

tioned, as he requires the money to meet his wants.

The banker is enabled through the operation of the system illustrated by these examples to collect all the unemployed capital in the country into his own hands. He pays to each depositor in return for the use of the money deposited a certain rate of interest on the balance at his credit in the bank, the rate varying in amount as the value of money varies with the fluctuations of the money market. In place of the money which has thus been withdrawn from the capitalist the banker substitutes the bank cheques already referred to. These cheques are circulated on the credit of the depositor, and at his responsibility, but on the faith that the banker will pay them when they are presented at the bank. Thus it is a matter of credit between the depositor tendering a bank cheque in payment of goods and the trader to whom that cheque is tendered accepting it. The trader accepts the cheque as a money payment in the faith that the depositor who offers it as such has capital to meet the cheque in the banker's hands. And the banker is so utilizing this credit between the capitalist and trader that up to the very time of drawing the cheque the depositor is receiving the current rate of interest on the amount represented by the cheque which he has given to the trader instead of gold.

The practical utility of this system of payments will be better seen when it is stated that the cheques which passed through the Clearing House of the London bankers, during five years from 1871, amounted at an average to about one hundred and nine million pounds every week, or about eighteen million pounds daily; and that, although no other commercial centre may be compared to London in this respect, there is still in addition a circulation of money going on by cheque in every town and hamlet in the country where there is a bank. Now all these cheques are essentially credit of the character described, based upon capital, and obtaining circulation through the medium of the bank. They all represent money which passes from the possesion of one individual to another, without the money having been removed from the banker's till. They are simply written to the debit of one individual, and placed to the

credit of another in the banker's ledger.

We have now seen the way in which credit may be formed on both wealth and captial, and the practical utility with which that credit has been endowed by the banker. It will be remembered that the credit formed on wealth and embodied in the bill was substituted by currency from the bank, and went to be directly applied to purposes of commercial industry. By the cash credit, however, the currency was drawn from the public into the bank, and became represented by the cheque. The individual, in the first

instance, became indebted to the banker, and in the second instance, the banker became indebted to the capitalist, or in other words, the banker obtained the gold of the capitalist to meet the requirements of the trader. It is the highest function of a bank to carry out this object; and it is important to observe the position in which a banker is left through the operation upon each other of the respective credits we have been considering. This may be at once seen from the cases we have already assumed: thus, when the f. 1,500 was deposited in the cash credit the only obligation which the banker had to meet was the discounting of a bill for £100. The banker is thereby left with  $f_{1,400}$  to meet the periodical requirements of a depositor who may only spend £700 during the year. This transaction, therefore, leaves the banker with £,700 on deposit. Now supposing that the aggregate of deposits obtained in this way amounted to £12,000,000 (which is not an overstated sum for an English banker to hold), the banker would require to keep a certain proportion of this sum in his own hands ready to meet the daily demands of those who have deposited the money. The sum so reserved, may be more or less in amount, as suggested by experience in the bank management. It has never been found by the most careful bankers to exceed one-third of the total amount deposited. This would leave a balance of £8,000,000 available for use in other ways. And this balance is the chief source from which the revenue of a bank is derived, and, as a rule, is in one way or other applied to purposes of commercial industry, generally in the manner which we have suggested in the details of the discounting of the bill.

It will be observed from what has been said on the foregoing principles of the English banking system, that the strongest bank would be the one which holds the largest amount of money on deposit, because it would have the greatest resources for the production of profit to itself. But as these resources are sometimes supplemented by a note issue, and their value, not unfrequently impaired, by being employed in the doubtful Banking business, which has been alluded to, we shall in our next letter, consider the nature of a

banker's obligations.

JOHN K. GUTHRIE.

23rd March, 1877.

### To the Sen.

O! thou wild, tempestuous ocean,
Well communes my heart with thee,
In the ever-ceaseless motion,
In the changing hues I see;
How I love thee
Emblem of the soul to me!

In thy restless, anxious tossing,
In thy struggles to be free,
Doth my spirit, vex't with crossing,
Boundless ocean, beat with thee;
Ever varying,
How our fitful moods agree!

Dashing o'er the rocks opposing,
Lashing with thy wave the shore;
Now in gentle calm reposing,
Now convulsed with anger o'er,
How I love thee,
Nearer, dearer than before.

Now I know the ebb and flowing, Sunny morn and low'ring eve; Know the coming and the going, How to joy, and how to grieve: In my knowing— Ocean—thou too can'st believe.

To the murmur of thy sadness
Breathes my heart a kindred sigh;
Thy serenity of gladness
Knew I too in days gone by.
Yes, I love thee
With a strange intensity.

Salt thy brine, but teardrops salter
Flow to mingle with thy tide;
Burning thoughts from lips that falter
As I wander by thy side.
I can tell thee;
Tell to thee, and none beside.

Art thou ruthless in destroying?
Time is yet a wilder sea;
With our hopes of youthhood toying,
Scatt'ring all in careless glee;
Till he leave us
Wrecks of what we used to be.

Yet the flower of hope is blooming
On one rock above the spray;
All the distant east illuming,
Glows the promise of the day;
Time's dark ocean
Lit with an eternal ray.

### Colonial Stock Food-plants.\*

#### By Professor Mac Owan.

THE most valuable fruticose food-plants for sheep seem to be: 1. Pentzia Virgata Less. 2. Adenachæna parvifolia D.C. 3. Diplopappus filifolius D.C., each of which has its special value. All are capable

of easy and extensive reproduction.

On many farms in this district, both east and west of that natural boundary the Klein Bruintjeshoogte, there exist great patches of Pentzia growing socially almost to the exclusion of other bosies. This social groweth is noteworthy, being a factor of some importance in the choice of a sheep-food. It seems best fitted for argillaceous flats where the soil is rich and tenacious and has a small admixture of lime. A slight brackishness in the soil does not greatly effect it. For stony ridges it is less suitable. The plant seeds very freely, and also increases spontaneously by a kind of natural "layering,"—the longer branches bending over till they touch the soil and take root at the tips. This property is of the greatest value in counteracting the formation of hollow sunken water-ways round each tussock of bush, a result brought about by overstocking. The sheep and goats tread out these bare path-ways,-the rain rapidly washes the loose soil out, and the process is repeated until one may see acres of veldt where every bosje is perched on a low mound and has a distinct channel around it. Here are sluits in an early stage of formation, and no better mode could have been contrived for allowing the precious surface-water to run off rapidly and effect a minimum of good. To this obvious mischief the Pentzia offers a natural remedy. Every outward branchlet layers itself a few inches from the parent root, starts a fresh plant which collects around it the detritus and soil washing down the channel, and thus forms ultimately a complete barrier to the water-run. Such a process of spontaneous estopping requires merely to be fostered by removal of stock for one or two seasons, in order to restore permanently that part of the veldt, and prevent the truly South African curse of insolation and loss of surface soil by torrential water-ways. Judiciously applied labour would materially shorten the work. Useless and hurtful bosjes should be extirpated, Pentzia seed sowed in their place, and the deeper channels estopped with the withered refuse carefully laid in, branches upstream, and the roots packed over with stones. In fact, it is impossible to get the full value of the rainfall without effacing the pernicious surface water-ways by an active and intelligent rebuissonement or restoration of a uniform coating of bush. Of the value of the

<sup>\*</sup> This valuable memoraudum on Colonial Food-plants was written by Professor Mac-Owan for the information of the Government Commission on Cattle Diseases. A copy of it appears in the Report of the Commission, but blurred by so many misprints that we willingly make room for this revised paper, in the pages of the *Monthly*,

Pentzia as a food for small stock there is but one opinion, hence

nothing need be said on that point.

As far as my observation has gone, the Adenachæna is much less plentiful, and less social in growth than the Pentzia. I am told that it is equally good as food, if not superior. But the fact that it grows with great luxuriance on rocky ground, which will not support the Pentzia, and which has too slight a slope to give a favourable aspect for other useful plants, is a point in its favour. I have no experience of growing it from seed, or of the comparative ease with which the seed may be collected.

The Diplopappus filifolius D.C. (Draai-bosje) is fitted for all stony, rocky slopes which have a considerable inclination, especially those facing southward. Few bosjes seed more profusely. Almost any desired quantity of the seed might be collected by beating the branches over the stretched mouth of a bag like a butterfly net, and it could be sown broadcast on suitable rocky ridges after rain. There is one drawback to this food-plant: it gives to the meat of slaughter-stock fed on it a strong aromatic taste, which to some persons is very unpleasant. I am, however, informed that a change of pasture for a fortnight is sufficient to work off the obnoxious flavour.

I have placed these three food-plants in the first rank because they appear to be generally diffused, already plentiful, nuitritious, and adapted to the varying surfaces to be found on most farms. The first and third are of extremely easy propagation by seed, and especial value attaches to the surculoid mode of growth belonging to the first.

On similar slopes to those affected by the Diplopappus, but with a more sunny aspect, and also an undulating stony carroid veldt with a red and often slightly brack soil, grows the magnificent "spekboom," Portulacaria afra, facq. It seems extraordinary that a plant of such large size, and so greedily devoured by horned stock, should not have been extensively utilized by planters. I have witnessed from year to year the gradual disappearance of large thickets of this tree by ruthless feeding off, but have never heard of any person starting a few cuttings to replace the trunks torn down by cattle. It might be increased indefinitely by this simple means, which would be easier than collecting the quickly-shed and short-lived seed. It is instructive to note the rapidity with which the most broken and deformed trunks of this tree recover from injuries if a few months' respite is given them: in fact, there is no food-plant of the Cape which more plainly and even obtrusively thrusts forward its good qualities to the notice of the stock-farmer. I have made many attempts to send the seed to California and Australia, where its value would be eagerly recognized, but as yet without success.

Selago leptostochya, E. Mey., the "Aar-bosje," cailed in Alabania the "Water-finder," appears to be very useful, especially for goats and stands drought remarkably well. Its seed is difficult to gather,

but the plant springs up freely and multiplies itself in land that is reserved for a season. I think it agrees well with grasses, and would seem to belong rather to the *gebroken* veldt than to purely carroid soils. No other common *Selago* is of value. S. corymbosa, L, grows almost socially on grassy flats about Graham's Town, but even in

hard times is untouched.

The "Vaal-bosje," Atriplex Halimus, L. v. Capensis, covers considerable areas in ground impregnated with soda, and is generally interspersed with other shrubs and plants of similar value as stockfood. Among these are Kochia pubescens Mog, Caroxylon Salsola Th, Tetrogonia arbuscula, Fenzl., and Exomis axyrioides, Fenzl. All these are eaten, the preference being seemingly in the order of enumeration. But the Atriplex is the only one of these "saltbushes" capable of ready multiplication. Unlike the others, its seed, enveloped in large conspicuous bracts, is readily gathered, keeps its vitality for a long time, and germinates readily. I notice that goats destroy this shrub far more than sheep, through their habit of treading down the side branches to get at the tender topmost shoots, a practice which in bushes of the generally brittle Salsolaceæ is more mischievous than the severest browzing from above downwards. For a change of pasture, especially for ostriches and for stock showing signs of intestinal parasities, and requiring salt and alkaline food, the Atriplex cannot fail to be very valuable, and should be encouraged by reserving and sowing upon a sufficent breadth of brack soil where-

ever such spots occur.

Several species of Mesembryanthemum, -M. geniculiforum, L. M. nodificrum, L., commonly burnt for soap-ash, with M crystallinum, L. and M. angulatum, Thunb., recognizable by the glittering papulæ covering the leaves and stem, appropriately fill up all interspaces between the Atriplex bushes. The two latter species should form a good resource in time of drought, being full of insipid watery juice. It may be worth while to note also that their leaves are superior as a pot-herb to the garden spinach, and quite equal to the noted Tetragonia expansa Murr. of New Zealand. It is obvious that after depasturing infected stock upon such patches of salt-bush to remove intestinal parasites, the whole available growth of bush might be cut down, dried, and burnt for soap-ash, thus securing at once a useful product and the distruction of larvæ. Other Mesembryanthema, especially the purple flowered M. foribundum Haw. and M. obliquum, Haw., growing socially over wide areas, upon carroid flats where the soil is not perceptibly "brak," afford excellent pasture, and from their succulence are peculiarly adapted for small stock during the lambing season. It would not, however, be easy to increase the growth of these by artificial means, the capsules being troublesome to gather. Less labour would extirpate the useless yellow Bulbine asphodeloides, Kth., and keep under the Chrysocoma tenuifolia, both of which spread fast in the open ways trodden out between the patches of Mesembryanthema. Rest and reservation during the blooming and

seeding time are the obvious modes of restoring such areas, but there would seem to be no objection to the introduction of *Pentzia*, for it often grows spontaneously, commixed with the succulents in question.

There are many other very useful but less important food-plants which close watching of feeding flocks will point out. Among these are several dwarf Hermanniæ and Maherniæ, Pollichia, Hypertelis, Aizoon. None appear capable of direct culture, but the avidity with which they are sought out by sheep, and their spontaneous reproductive power, are both well shown by the luxuriant growth of all of them wherever an enclosure is made and gives them a season's respite. They will, therefore, evidently fulfil useful purposes, and maintain their share of the value of the veldt wherever a commonsense system of reservation, or a yearly rotation of horned stock,

sheep, and fallowing is maintained.

I have reserved to the last a little-known but very promising plant, pointed out to me by Mr. James Leonard, sen., to whom the credit of recognizing and investigating the action of the plant exclusively belongs. Lasiocorys capensis Benth. is a shrub of the order Labiata, to which belong lavender, mint, thyme, and sage. It has a strong tap-root, which is formed the first year; subsequently numerous side roots are emitted, and at the same time arise great numbers of curved, ascending branches. A bush of one to two and a half feet in height is thus formed. It flowers and seeds just about the time of the autumnal rains. Its foliage and shoots are slightly bitter and aromatic; hence, all through the plentiful food-season stock seldom touch it. Growing apace, it is in fine condition when other food fails, and by the end of the winter may be seen browzed down to the very roots. But the great value of the Lasiocorys lies in the fact that it springs up most readily in the barren shingly detritus of waterways, grows luxuriantly, collecting around its roots soil washed in and blown in, and ultimately turns the water out on to the level. It is, therefore, a natural corrective to the mischief arising from surface torrential water, and by those who have observant eyes may be seen working out its beneficent task in thousands of places. The seeds, four angular nutlets at the bottom of a widely-open calyx, are very troublesome to collect, for the least breeze blows them out; still the value of the plant is so great, both as a winter food-resource and a corrective of incipient sluits, that it should receive the pains and care demanded for its propagation in the situations fitted for it. Naturally, its habitat is upon low-backed stony undulations cropping out from carroid flats, such as are affected by the Adenachana.

I refer to grasses with much diffidence, for the widest variation of opinion prevails upon the comparative value of these food-plants. Perhaps the statement most generally agreed upon is that our best grass is the glaucous bluish Rooi Gras, Anthistiria ciliata, Retz, but the interminable quarrel as to zoet gras and zuur gras has not been decided with respect to this species. Some place it in the one

category, some in the other. Subject to correction, I venture to submit an opinion which has not been hastily taken up, but on which more experiments and consecutive observation are needed. this climate, where the heat of summer comes with a rush and the sunlight is very powerful, it is vain to look for grasses which will form a succulent nutritious herbage throughout the year, like the Festucæ, Poæ, Phleum and Dactylis of English meadows, flourishing with a maximum of moisture and a minimum of sunlight. Even these after seeding become harsh and wiry, and hence are wisely mown when at their best, and converted into hay by the laborious English farmer for a "stand-by" in winter. Now our Anthistiria and other useful grasses, after some months of very sluggish vegetative life during the dry winter, are suddenly deluged with rain, and subsequently forced into excessively rapid growth by the stimulus of great heat and light. Should the summer prove cooler than usual, the natural result, namely, the hardening of the cell-walls of the tissues, is retarded, and the grass is digestible for a long period. If, however, a dry and hot season supervene, the tissues of the leaves and culm rapidly harden, the cell-walls become harsh and scarce permeable by the sap, and the cattle find their food dry, innutritive, and even irritating to the stomach. The former set of circumstances gives a zoet-grass, the latter a zuur-grass, made from one and the same species.

Again, there are dozens of grass-species which under no conditions can give succulent herbage, being naturally dense in tissue and charged with mineral constituents, especially the silica upon their surface. When eaten under pressure of hunger by animals accustomed to the soft succulence of spekboom and karoo-bosjes, they may produce violent indigestion, inflammation of the intestines, and even death. These, then, are naturally "zuur" grasses, to use the current phrase, and a district producing them in large percentage, and with a climatic or geological tendency to cause hardening of cell-

tissue in grasses is "zuurveldt.".

Let any one take a handful of Anthistiria at its best, when the bloom is just coming on and gently triturate it in a mortar with a warm weak solution of caustic potash; it will be readily ground to pulp, leaving a small residuum of fibre of no great strength or hardness. Repeating the experiment with Melica Caffrorum Schrad., any Aristida or Andropogon even when equally young, the experimenter will have a fibrous residue almost like paper-makers' material in an early stage of manufacture. I therefore submit that "zuur" and "zoet" applied to fodder-grasses have no reference to the chemical terms "acid" and "neutral," as might be supposed, but simply mean less or more digestible through a greater or less degree of hardening of tissue, and that such hardening may be brought about by conditions of soil, conditions of climate, or both of them, and also may exist in virtue of the natural properties peculiar to this or that species of grass.

Be this as it may—whether rooi-grass is always and everywhere "zoet," or in some places and in some seasons more or less "zuur," -it may be affirmed pretty certainly to be the best native grass for permanent pasture, to remain nutritive longer and under more severe conditions than any other of social growth, and to be not easily killed by drought or by the ravages of locusts. The experience of Australian farmers respecting the A. Australia, R. Br., or "Kangaroo-grass," a so-called species which does not appear to me truly distinct from our A. ciliata Retz., all points in the same direction. It is perhaps too much to hope for at present, but the processes of breaking up tallows, eradicating weeds, and sowing and rolling down selected grass-seeds, which have given England her unrivalled farm-pastures more valuable than tilth, will have to be repeated here with changed conditions. The paddock and meadow will be the rule, the hungry veldt the exception. To collect and sow the seed of this and other good grasses which, being naturally fitted to the country, require neither irrigation nor enclosure, seems a more profitable venture than to import the much-lauded Bromus Schraderi (Ceratochloa unioloides P. B.), cultivate it like oats or barley and find it a mere annual.

The other grasses noted as forming here and there a considerable proportion of good grass veldt are Panicum commutatum, Nees., P. sanguinale L., Setaria glauca, P. B., Briza geniculata, Thb, Microchloa Caffru, Nees., Bluffia Eckloniana. Nees., Eragrostis curvula, Nees. and E. filiformis, Nees. None of these grow socially and make a compact turf of a single species, except over very insignificant areas, but arise intermixed with each other and with Anthistiria. Cynodon Dactylon Pers., well known as the small quickgrass, covers extensive patches with a very close tenacious turf. Its stoloniferous habit, creeping extensively by underground stems and numerous roots, enables it to withstand severe drought, but the short character of the herbage renders it unsuitable for horned stock. Unless under exceptionally favourable conditions, only sheep and horses can find a living on it. As to its nutritive value I cannot give an opinion. A further use to which its creeping habit renders it suited would be the restoration of turf in tramped-out places, especially around farm-houses and in ostrich-runs, and wherever bare patches expose the surface to insolation and to the action of heavy

rains.

I have not seen any of our larger species of *Panicum* growing in such quantity or so socially as to encourage the hope that they might be profitably collected and sown upon unenclosed veldt. Their height is too great to withstand the wind without protection; and as far as I have seen, their seed is not long retained. Now speaking generally it is the seed that constitutes the chief value of this genus, not the full-grown herbage. It would, therefore, seem likely that *Panicum maximum Jacq.*, our native form of the "Guinea Grass," and its foreign congeners, *P. barbinode Trin.*, *P. lævinode Ldl.*, *P. frumen-*

taceum Rxb., and P. italicum L. will only become available when

paddock-culture is possible and remunerative.

On the plateau at the summit of Boschberg, Plantago lanceolata L., often called "Rib-grass," but really possessing no resemblance to a grass, has been introduced and is completely established. For moist hollows in similar uplands with a cool climate it is very suitable, and may add to the value of the pasturage, but is apt to crowd out everything else. It is only upon these tabular plateaus at an elevation of near 5,000 feet that English grasses have any chance of success. The best to experiment with would be Poa pratensis L., P. trivialis L. Festuca ovina, L. F. duriuscula, L., F. elatior, L, F. pratensis Huds., Phleum pratense L., Dactylis glomerata L., Molinia cærulea Mönch., Hierochloa borealis R. & S., Agrostis aiba L. Most of these can be obtained in any quantity of English seedsmen.

Not less important to the maintenance of stock upon the veldt is the recognition and extirpation of useless, destructive, and poisonous plants. Of these the bitter karoo bosje, Chrysocoma tenuifolia Berg, is increasing rapidly wherever the land is overstocked. Untouched by the sheep except under pressure of necessity, it blossoms and scatters its seed without let or hindrance, till in many places it forms over fifty per cent. of the natural produce. When eaten in large quantity for lack of better food, the Chrysocoma produces bilious derangement, the fœces become black, and semifluid like tar, and the animal pines away. Pulling the plant up by hand before it flowers, and scattering Pentzia seed in its place seem to be the only modes of extirpating this pernicious weed. In gebroken veldt, seeds of Ansthistiria may be substituted. In the neighbourhood of Graham's Town, especially on the N.W., the increase of similarly useless cumberers of the ground has been considerable since the date of my first observation of the veldt in 1862. The well-known Rhenoster-bush Elytropappus Rhinocerotis, Less., and Relhania genistæfolia, L'Her., are there nearly as abundant as the Chrysocoma, over large areas, and almost defy eradication. Moreover, the most patient efforts in this direction might be defeated in a single season by the ignorant supineness of a neighbour permitting these compositæ to perfect their seeds on his land, and fly off before the wind, parachute fashion, to take possession of the recently cleared spaces near his boundary.

In the same category must be placed the thorny Mesembry-anthemum spinosum L., unfortunately of social growth. Its short flowering branchlets harden into spines of such strength and sharpness as to preclude browzing. As with other weeds, there is no remedy but labour, persistently applied to destroy and substitute something better. Possibly the plant might be reaped off close with a coarsely set machine, dried and burned, while the roots are being torn out with the spiked roller used in England under the name of "an extirpator." But unless the land thus recovered were well placed for irrigation and much required for conversion into tilth, it is questionable whether its improved value would compensate for the expense of clearing. Many years probably will elapse before the mechanica appliances of European farming can be profitably applied to the im-

provement of veldt pasturage.

Scattered throughout the carroid and gebroken veldt and rapidly increasing, one sees small clumps of a thorny Lycium with red berries, and a still more thorny Asparagus, (A. stipulaceus Lam.) Too spinose to be browzed down, there is no limit to their reproduction. The Asparagus will, I fear, be a worse pest to breeders of Angora goats than ever the Xanthium spinosum has been. Its short surculoid branchlets die down in winter, for half their length without losing their crooked thorns, and being then very brittle, break off at the least touch and catch inextricably in the goat's hair. I have seen one quarter of the produce of a large goat thus rendered worthless. Both plants bear abundance of berries, and also increase by underground stems. Stubbing and burning alone can effectually destroy them. The Asparagus has large ovoid tubers as well as fibrous roots, rendering its extirpation specially difficult. Perhaps good might be done by plentifully covering the obnoxious clumps with dry kraal-dung and setting it on fire. The heat of this fuel is so long retained that even the roots are likely to be killed by such procedure.

Another small thorn bush with yellow flowers, and seldom exceeding one foot in height, Melotobium microphyllum E. & Z., is increasing in grass and gebroken veldt, but by seed only. It might

easily be checked by land labour.

It is scarcely necessary to allude to the well-known Xanthium spinosum. Yet its mischievous effects are perhaps over-rated, and other more destructive plants are passed over for want of an Act of Parliament levelled against them. I have seen sheep's wool speckled throughout with the flattened screw-like pods of Medicago laciniata—a small prostrate leguminous plant now springing up everywhere in grass veldt and cultivated land. Echinospermum lappula Lehm.—the "Carrot-seed," as it is called by Australians,—is also pretty well known, and because of its hardness and burry character is a great source of complaint to the wool-staplers. I cannot suggest any remedy for these pests: they are too small for ordinary modes of extirpation, and are perpetually recruited from the cultivated land.

It is much the same with the T'Nenta Lessertia annularis Bcb., a small leguminous plant which in carroid and gebroken veldt is sometimes very abundant, and acts as a poison upon sheep and goats, resembling the results reported of Gastrolobium bilobum R. Br. and some of its congeners in West Australia. It seems to produce cerebrospinal paralysis, by which the animal is unable to co-ordinate the movements of its several limbs. The head wags helplessly backwards and forwards, and in severe cases, death speedily ensues. I have not dissected any animal thus destroyed, and have not myself seen a fatal case. The plant pointed out to me as "Bietouw," and said to be poisonous, is Dimorphotheca nudicaulis D. C. I have no

personal knowledge of its properties, or of the symptoms produced

by it.

Several plants belonging to the same order as the European Colchicum, or meadow saffron, which has the evil reputation of producing violent urethral irritation in cattle, occur in this Colony, and I have pretty distinct evidence that one of these, Ornithoglossum glaucum Salish., has been the cause of death to several oxen out of a span grazing near a spot where it was abundant. It is well worth inquiring whether these Cape Melanthace have anything to do with the sudden appearance of "Red-water" in cattle. Let it be remembered that bulbous and tuberous-rooted plants for lack of due heat and moisture at the proper season, sometimes lie dormant for years, and then spring up in the greatest profusion; and this may be the case with the Ornithoglossum. It does not grow in my neighbourhood; hence I have no means of observation.

Few poisonous plants are better known than the Tulp-bloem, *Moræa tripetaloides Eckl*. I have only to remark that its existence in grazing ground is a proof either of scarcity of labour or of the lack of an intelligent desire to improve the pasturage. It is not difficult to destroy, being of a convenient size for hand-pulling, and generally perishing altogether when the main stem is jerked out. It should be noted that if cleared away when in flower the stems retain life for many days and often ripen their seed; burning with kraal fuel should

therefore be resorted to.

I have not personally noted any case of death from the curious intoxicating "Dronk-gras," *Melica dendroides*, *Lehm*. There can be no doubt that very singular physiological effects are produced by this plant, and that in a general way they resemble the symptoms ascribed to the European *Lolium temulentum L*. The whole subject is worthy of careful investigation by some one familiar with the anatomy and pathology of cattle, especially as the grass is spreading very rapidly.

In the course of the last fourteen years I have observed six species of common grasses affected more or less with the fungus that forms the well-known Ergot, (Claviceps purpurea Tul.) Of these the one most attacked was Gymnothrix hordeiformis Nees., a tall coarse grass with a very long white cylindric spike of florets, and which is common by streams and velys throughout the Eastern Province. I have gathered spikes with as many as nine well developed sclerotia of Ergot on each. Here, then, is the probable cause of the prevalence of abortion among breeding stock. Given a season specially suitable for the development of fungoid growth at the time when calving is about to take place, it is easy to see that the farmers may by the general growth of Ergot over a large district incur enormous losses, which in absence of any knowledge of the existence of ergotized grasses may be conveniently set down as epidemic, or charged to something amiss with the air, the water, the electricity, or any other scape-goat. On the whole, it would be a safe plan to cut down the Gymnothrix whenever found near the ordinary drinking-places for the cattle before it flowers. It is so coarse a grass that it is not likely to be sought out expressly, and no doubt a great deal of mischief will be prevented by its removal from the positions in which it is most

conspicious.

The conclusion come to, after some years' observation of the pasturage in the districts of Albany and Somerset, is that a decided deterioration is in progress, arising partly from overstocking, partly from unintelligent use of the pasturage, and partly from the neglect of precautionary measures of reserve, renewal, and repair. The evil is not so great but that improvement may be expected from any and every well directed effort, and it by no means yet calls for legislative interference. The great thing to be desired is that the far niente custom of considering the veldt as an inexhaustible balance put to the farmer's credit by Providence, and capable of reckless use, should give place to a wise provision and economy; in short, that the pasturage be held to be inconvertible capital, demanding as much sharpness of observation and appliance, as much quickness to detect deterioration and skill to devise a remedy, as is requisite in manipulating convertible capital on the money market. Much might be done by cultivating the scientific habit of thought, and encouraging original investigation among the rising youth who are to be the farmers of the next twenty years I see no reason why agricultural chemistry, including rough but sufficiently accurate modes of analysis, the comparative anatomy and hygiene of domesticated animals, and the nature of vegetable growth, should not be taught in all Government Schools as in the Forstschüle and Cantonal Schools of Germany and Switzerland.

To sum up the causes of deterioration of the pasturage: The evil of overstocking arises out of destruction of food-plants, formation of torrential water-ways, and great increase of useless and noxious weeds. The defective use of the pasturage is seen in the long distances stock are made to travel to and from their feeding-grounds, the enormous accumulation of the natural fertilizer of the land in one place so as to be worse than useless, and the absence of any attempt to provide a little artificial food to tide over a scarce time, and supplement the scant supply of the veldt. The neglect of precaution is shown by the rarity of close reserve to enable lands to recover by natural increase, by the absence of artificial multiplication of food-plants and extirpation of any noxious weeds except Xanthium,

and the neglect of attention to the surface water.

In this report upon the food-plants as connected with deterioration of the veldt, I have briefly stated what seems most suggestive on all these points except that of defective use. This is purposely omitted, partly because it lies somewhat outside the main subject in hand, and partly because it involves some very difficult questions of practical management and detail which can only be satisfactorily discussed by practical men, whose experience would far outweigh in value any theoretical views of mine.

## The Music of the Juture. By Ch. Thorpe.

II.

SINCE the appearance of the first part of the present article in the Cape Magazine, the production of several of Wagner's works in Germany, England, and elsewhere, has given the public some opportunities of judging as to the merits and extent of his innovations in the structure of the musical drama; and of the success attendant on the attempt at unravelling the dramatico-musical Gordian knot,

which Wagner claims to have effected.

For those readers of this journal who may never have witnessed the performance of a grand opera in its entirety; that is to say, the simultaneous combination of vocal, orchestral, and scenic accessories - without which the work is necessarily incompletea brief resumé of the origin and history of this form of art may prove of some interest; and to those South Africans especially whose ancestors migrated from Holland, the Netherlands, and Belgium; inasmuch as the Italian school, so long and closely identified with Opera, was mainly indebted to teachers from those countries for the status it acquired. While to the Dutch contrapuntists also, England and Germany were equally indebted. The exigencies of space forbid details concerning the influence of the Dutch on the Italian school of singing; and "the Netherlands in Italy," and the two centuries of Belgian ascendency, with their "three hundred musicians of marvellous science," can here be merely hinted at in passing to the censideration of the changes which Wagner and his coadjutors would institute in this and the allied branches of musical art. But a few observations may here be offered as to the rationale of music, as music, independently of its application to stage purposes; which may tend to throw some light on the question at issue, viz: the dramatic power of music per se; and in conjunction with poetry.

Concerning the origin, intent, and raison d' eire of music, little can be said in addition to that already advanced. That it is the natural offspring and external expression of sensuous apprehension, is freely enough admitted by Wagner; but the musical form he causes this expression to assume, as the objective embodiment of his ideas, is one so opposed to that hitherto received as the true one, as to have met with the most violent opposition. In its strivings towards a manifestation of the ideal, the inner ego employs for its expressionidiom various forms; as tone language, poetry, painting, sculpture. With the musician the embodiment of the artistic intuition is in tone-language, a purely effusive art; while, on the other hand, the forms employed by the poet, painter, and sculptor, are partly imitative arts. Music imitates nothing; its physical indication, or manifestation, is in the intangible, though clearly perceptible, guise

of melody. When in this melody, what Klopstock terms the "real tones of truth" are enunciated, emotions are originated in the attentive listener, of a nature and power far surpassing those produced by the exercise of any other art. The importance of this melody is fully recognized by Wagner. He indeed states that "the only form of music is melody; without melody music is not conceivable; and music and melody are inseparable." This melody, however, must have a form, and this form be developed to its maturity; or by what possibility can the intuition, of which it is the external representation, be said to be complete and significant? A melody, however, so developed, is, according to Wagner, "the first narrow form which it assumes in the dance tune." He thereupon proceeds to curtail this form, already "narrow," till it becomes, in his later works, little else than a mere motivo, which motivo is moreover given to the orchestra; rarely to the singer at all. His first published opera "Rienzi" (founded on Bulwer Lytton's novel), contained fullydeveloped melody accompanied by the orchestra; so also his next opera "Die fliegende Hollander" (the old legend of the Flying Dutchman). He has since the production of these developed his style at the expense of the melody; for in his recent works, commencing with the "Meister Singer" (which Wagner announced to be the logical sequence, viewed from an artistic standpoint of "Rienzi," "Die fliégende Hollander," "Tannhauser," "Lohengrin," and "Tristan and Isolde"), the hitherto recognized conditions have become reversed; the orchestra being now the real singer, while the voice delivers a kind of recitative, dependent on, and serving as an accompaniment to the orchestra. But these represent not the only "reforms" aimed at in the development of the "music of the future; " for while it is admitted that considerable modifications in the structure of opera would be of great advantage, the tendency of Wagner, like that of the reformers of the Renaissance period, is to destroy good and bad together. Again, his theory of the "poetic basis" implies that music is incomplete in itself; that with all its powers of expression it is but half an art, and that it is only perfect when in alliance with poetry. This theory we have already seen, was held by the ancient Greeks; but with the accumulated experience of twenty centuries in the life of art to draw upon, we are now asked to accept a narrow phase of it, which has again and again been weighed in the balance and found wanting. Music pure and simple is, according to Wagner, "an unmarried and therefore soulless woman." His aim is, therefore, to perfect the art by marrying it to verse. Thus it is the lyric drama which he has chosen as the field in which to exhibit his theories; and it is here we must look for an illustration in the present of what is styled "the music of the future." As to the merits of Wagner's verse opinions are divided. His adherents, however, claim for him special faculties as a dramatic poet. Whatever these faculties may be one thing is certain, they have stood him in good stead; for while his aims and

tendencies are not so much the reformation as the destruction of opera as it now exists, he assumes in the production of his "music-drama" the office of poet, as well as that of composer, and to make

assurance doubly sure, he is his own stage-manager.

The poetical basis theory, which lies at the root of Wagner's system, is little else than a revival of the old dispute in regard to the two arts of expression—poetry and music. On the Greek stage poetry was supreme; music her handmaid. The very canons of Greek art forbade anything like precedence of music over poetry, but music-such music as the Greeks possessed-was employed to enforce the meaning and expression of various footed verse. From this state of dependence the art gradually emerged; and with the introduction of new mechanical appliances, music began to assert a supremacy hitherto unknown, not to say impracticable, from the want of these appliances. During this long period of progressive development, however, the fact seems scarcely to have been recognized that the two arts were each capable in its own way of becoming a vehicle for the illustration of certain ideas, feelings, or fancies; poetry with the literalness and exactness of truth; music with a vague, suggestive, but not absolute power of representation. Twin sisters, the two arts united, mutually assist and illustrate each other; separate, they are capable of producing powerful effects. Opposite views of the functions of these two arts have been alternately in the ascendant. Music, on the one hand, made subservient to poetry; poetry on the other, becoming a mere vehicle for musical expression. The history of the opera especially illustrates the various attempts which have been made to turn the balance in favour of the one or the other principle. At the present time, under a plea of the necessity for a poetic basis, it is sought to demolish the opera, and substitute the "music-drama" in its place. What this musicdrama is, with the sweeping changes which Wagner and his followers propose to effect in the lyric drama, will appear in the following short historical notice of the gradually built-up structure known as "Opera;" possibly also an indication may be gathered, as to how much of Wagner's so-called new theory is-what very many of his opponents deny-really new.

Were it not that the word "Opera" has become a conventional term implying a musical composition based on a drama, and presented to the audience with the aid of scenery, it could scarcely be said to express so much. The earliest Italian lyric drama was termed "a musical work" (opera musicale); but Wagner's definition of it is:—"Opera does not mean so much a musical work, as a musical, poetical, and spectacular work all at once; that is, the work par excellence, to the production of which, all the arts are necessary; the composer being the sculptor or upholsterer, and the writer of the words the architect." If this represents the condition of the opera of the future, it may equally be said to define that of the past also; for we find Rousseau ("Dict. de Musique") just a century since, saying:—

pression on the heart."

'An Opera is a dramatic and lyrical spectacle, designed to combine the enchantments of all the fine arts, by the representation of some passionate action through sensations so agreeable, as to excite both interest and illusion. The constituent parts of an opera are the poem, the music, and the decoration. By poetry, the spectacle speaks to the mind; by music, to the ear; and by painting, to the eye; all combining through different organs to make the same im-

The earliest known specimen of an opera dates from a period of about one thousand years before the Christian era. It is that portion of the Hebrew writings, known as "The Song of Solomon." Such at least is the opinion of the learned Jesuit Father Menestrier, who founds his views on a passage in the writings of Origen (one of the early Christians, and according to St. Jerome, a teacher of music among other things). No reference to music, however is made in connection with this work; indeed no ancient Hebrew music is known to exist, notwithstanding all that has been written and said upon the subject. The vicissitudes of the Jewish nation, at a time when it was the fashion to transplant whole tribes of conquered races to distant regions, would render hopeless the preservation of such fragile specimens of art; even assuming that any method existed of noting down musical compositions, which also has never been shown: and tradition in this case, can help us but little. "Solomon's Song," therefore, from a musical point of view, is of less value than the fragments of the Ode of the Greek Pindar (some five hundred years later) which at least possess some notation.

The Greeks and Romans, on whose records alone we can rely, seem to have possessed nothing at all approaching to what we understand by "Opera"; although as has been before observed, with them, music and poetry were inseparable. It is true that some five or six centuries before the Christian era, Pythagoras and others began to establish something like a scientific basis for music. Under that name, however, they included not only music, but also dancing, poetry, and the drama. For the presentation of this combination of the arts, they built theatres of an immense size, with a stage. Here they performed tragedies, and comedies, in which their intoned recitation of the dramatic monologue was accompanied by an orchestra of some kind. The stage business was much indebted to a chorus also for its effects. The Sylvan Drama, which was of a comic and satirical character, being employed as a relief to the Tragic Trilogy. This may be said to include most of what is now known regarding their application of music to the drama; though the opinion is gaining ground that the real origin of our modern opera is to be found in the Greek Tragedy. While Metastasio and Pere Menestrier are of opinion that the Greek and Roman tragedies were chanted, others regard this rhythmic-melodic recitation to have been a matter of necessity, from the enormous size of their theatres.

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During the ages which succeeded the fall of the Western Roman Empire, music as well as the other arts met with little attention. Whatever progress was made in the scientific treatment of the art after this period, must be sought for principally in the monastery. Harmony of the simplest and rudest description gradually made its appearance; though exterior to the monastery, music of a different kind was to be found among the people, with whom it was in all

probability practised empirically.

At the end of the twelfth, and beginning of the thirteenth centuries, appeared the Troubadours and Minne-singers, specimens of whose compositions in melody and harmony, have recently been discovered and reduced to modern notation, displaying considerable progress in the art of counterpoint. One of these minstrels - Adam de la Hale ("Le bossu d'Arras") has left, besides a number of part songs, three plays containing music : -"Li Jus Adam, ou Jeu de la Feuillie;" "Li Jus du Pèlerin;" "Le Geus de Robin et de Marion." Of the latter (" Robin Hood and Maid Marian") M. Coussemaker, ("Histoire de l'Harmonie au moyen age') says:—"La musique de Robin et de Marion joue un rôle plus important;" the reason is not far to seek, for this relic is generally regarded as the earliest specimen of a comic Opera.\*

At a somewhat later period the mediæval mysteries or miracle

plays, appear to have formed a link in the chain of experiments which ultimately led to the production of the Lyrical Drama. In England especially, these miracle plays had before the suppression of the monasteries (temp. Henry VIII.) become very celebrated; the Coventry mysteries (says Dugdale) being visited in 1483 by Richard III, and in 1492 by Henry VII, and his Queen. Describing these mysteries, the antiquarian Hone says :- "Until the time of Luther, religion, which in principle is a pure science, was regarded as an art. It was the occupation of the clergy, who taught it as a mystery, and practised it as a trade. From the manifold corruptions of religion resulted these gross practices and delusions." Be this as it may, it was nevertheless from these same miracle plays that the modern drama took its rise. Akin to these mysteries also, were the sacred musical plays of the same period, which eventually served as the basis of the opera of the Italians, differing from the dramatic mysteries only so far, that the dialogue was sung instead of spoken. These musical plays were under the especial care and patronage of the clergy, who devoted much of their time and talents in promoting the success of what was then a semi-sacred species of entertainment.

This method of instructing the people by means of miracle plays, was continued during a long period. A specimen by Emilio Cava-

<sup>\*</sup> The MS. is in the Bibl. Nat. Paris. Its author, "the Humpback of Arras," elsewhere called "Le Boiteaux," and born about A.D. 1240; although a Trouvere, was also a Monk, which may account for the preservation of so many of his works, and perhaps also point out how some of the musical learning of the monastery became distributed among the people. Vol. XV.

liere, a Roman nobleman, entitled—" Rappresentatione di anima e di Corpo," was produced A.D. 1,600 in the Church of La Vallicella, Rome, where a stage with scenery was erected, on which dancing was performed to the music of choruses; all of which accessories were included in the plot or action of the piece. An orchestra of some four or five varieties of instruments, was also placed behind the scenes "to assist the illusion."

The plots of the works in question were not, however, all selected from sacred subjects and gradually the sacred element was altogether eliminated from them. For example; while one produced at Rome in 1440, was based on the subject of "the conversion of St. Paul," another, forty years later, the libretto of which was written by Cardinal Riario, was founded on the mythological story of "the descent of Orpheus into Hell." Even the Popes bestowed considerable attention on the production of these plays, and are said to have kept up an excellent theatre, in which the scenery and appointments formed no small item in the list of attractions. The character of the libretti may also be inferred from the fact that no less than seven were specially written by Pope Clement the 9th.

But as to the music of the period.\* The form in which this was cast was certainly not such as to render it consistently available for stage purposes. The method of applying it was not dramatic. If music applied to words must either express a state of mind, or delineate a character, this did neither. Then, if a proof were required that its means were too restricted, one example would suffice—the discord of the 7th on the dominant. This, which now plays so important a part not only in music written specially for the stage, but with the rarest exceptions, in every piece, vocal or instrumental, by a modern composer, was at that time not only unfamiliar, but when a century later, a place was demanded for it, it was universally condemned. The music of the schools was of the most laboured description; scientific, but devoid of feeling or expression, that is, of art. The specimens given of it by Morley (1597), fully justify the opinion expressed by M. Fetis, that "it was not even for the ear, but for the eye that musicians then wrote; all their genius exhausting itself in the arrangement of sounds in strange forms which were perceptable only on paper." The prevaling style was that technically termed polyphonic music, the most popular form of it being the madrigal, which may be described as a song to which several other vocal parts served at once as an accompaniment and a completion of the harmony, which was in strict counterpoint of the severe diatonic school. Efforts had been made to adapt this to

<sup>\*</sup> It was at this time, i.e., 1480, that Josquin de Pres "the glory of the Belgian school," claimed by Italians as "Del Prato," visited Rome; when the Italians knew nothing of the higher branches of music, although in the northwest of Europe schools of high excellence were flourishing; and "in a short time," says the abbate Baini, "by his new productions Josquin became the idol of Europe," Twenty years later, or fifty after the invention of printing, music types were introduced by O. Perrucci, an Italian. and nearly all the music from his press in Venice was of the Dutch or Belgian school referred to above.

stage purposes; unsuccessfully, need it be added, from the very nature of the thing. For example: a dialogue was carried on between two persons by means of choruses, placed either behind the scenes or in view of the audience. Another plan—which if not so ridiculous, proved almost equally disastrous to dramatic effect—was that of giving the melody to a solo singer, while the other vocal parts were performed by the orchestra. In this case, the human voice, so unlike in tone-colour (timbre) to that of every other instrument, stands out in relief as it were, and refuses to blend with the latter, so that the harmony is rendered imperfect.

Thus the time had fully arrived, when, if dramatic power, and truthfulness of expression, were to be aimed at, some steps should be taken towards remedying these short comings. Fortunately for the art, assistance was at hand, although from a direction least anticipated. The 16th century was drawing to a close; the slumbering spirit of progress had been invoked, and a new order of things was instituted. It was the Renaissance, which gave birth to the Italian Opera.

The Maroo.

By W. PROSSER, F.G.S.

No. II.

As already indicated in our last paper on "the Water Supply of the Karoo," it is very desirable, if not absolutely necessary, before commencing the study of the water system of any extensive district, to obtain a thorough acquaintance with its physical condition. An intimate knowledge of the lithological structure and stratigraphical formation of the rocks of any tract of country is imperatively required for obtaining a larger supply from its springs in the cheapest and surest manner. But a small area should not be chosen, inasmuch as the length traversed by the waters of a spring may be many miles, while its original sources, its subaërial and subterranean gathering grounds, may be far distant from its exit.

Man's sole supplies of water is obtained from rain falling on the surface of the earth. More or less of this water is lost to him by evaporation; the remainder, not absorbed by soil, forms itself into rivers, and in its course to the ocean it may be utilized as a motive power or collected into dams for man's future use. Much of that which is imbibed by the soil finds its way through cracks and fissures into the subjacent rocks; it continues to percolate through there until it reaches an impervious stratum and finds a vent at lower level, or until the pressure of its flowing column forces it out through a smaller aperture to the surface at possibly a higher level. It is evident, therefore, that the force of a spring largely depends on the

extent of the gathering ground receiving the rain-drops direct, as well as, of course, on the quantity of rain, and also, as explained above, on the character and extent of the receiving and gathering ground which is beneath the earth's surface. In order to have as complete a view as possible of the subject in hand, we will proceed to give some account of the Geology of the Karoo; that of the Gouph must be reserved for a future occasion.

Until now no one sufficiently conversant with the subject, or who has had enough leisure, or inclination, or a sufficiently long residence in the district, has paid that systematic attention to the sequence and

nature of the rocks of these two extensive districts.

The Karoo commences on the eastern side of the Hex River Mountain, at the Klein Straat, which is about forty miles from the village of Worcester, and one hundred and sixty from Cape Town, and it terminates at Buffel's River, seventy miles further east. The Gouph commences at Buffel's River and ends near Beaufort West, a distance of two hundred and fifty miles; in width both districts vary from one to ten miles. The division of this total length into two tracts is not a mere geographical one effected by the river above mentioned, but is that effected by rocks, soil, vegetation, and climate. If the nature of the rocks of any portion of a country be given, it is easy to tell the character of its soil; given its soil, and the leading character of its chief flora may be at once identified, other things being equal; and we shall find that the Karoo and the Gouph vary chiefly, from the differences which primarily exist in their rock formation.

Before we analyze the differences, let us give a general description of these regions. Our first journey into the Karoo was one of disappointment. Before starting, the best maps of the Colony were consulted. In them we found, as we thought, the names of several villages, if not small towns; such as the Straat, the Draai, and in large letters, Constable and Rietfontein. Guess our disenchantment when on nearing these localities in succession we found, instead of a village, a single house, and around that solitary house we more than once found no other evidences of life than the barking of fierce dogs.

There is not a single village in the whole of the Karoo or Gouph, from Worcester to Beaufort West. The houses are at an average distance of fifteen miles apart. People do not eibow one another here; and however much inclined neighbours may be when at home to rake up quarrels with each other, their choler has time to cool in transit. The only inhabitants, until the construction of the Beaufort West Extension Railway commenced, were the few sheep-farmers and their dependents; and the only production of a district comprising many hundreds of square miles in area were a few sheep and goats, together with a little oat-hay and corn. Nay, more; until very recently the region between Hex River and Beaufort West was, on account of its-barrenness and drought, almost as impassable to flocks and herds as the Kalihari desert; and we might almost venture to

say that to the majority of the people of this Colony the one was as

little known as the other, and nearly as much dreaded.

Traffic to the Diamond fields from Worcester, and the construction of a better road from the Hex Valley to Buffel's River, made the district better known; small farmers squatted near fountains, on Government lands, and more traders essayed to bring flocks of sheep and herds of cattle successfully through to Worcester. Still, accurate knowledge oozed out but slowly. It was to the interest of both the trader and the annual lessee of Crown property—the latter not unfrequently paying not more than one pound a year for the use of four or five thousand morgens of land—to disseminate as little information relating to their lands and markets as possible; and thus it is that reliable and complete accounts of this inland district have not hitherto been easily obtained. Nay, more; as is usually the case when correct details are not furnished, fictions took the place of facts. For instance, we were credibly informed by a person who claimed a full acquantance with the Karoo that a period of three years not unfrequently elapsed between the showers of rain falling therein. addition to this, we were led to believe by people who lived within forty miles of it that it was a treeless, barren, inhospitable region, abounding in venomous snakes and scorpions; a tract of country fit only for sheep, provided they were not carried away by troops of jackals; and where agricultural pursuits were impracticable on account of the depredations of baboons and porcupines.

Others described the Karoo beautiful as a flower-garden; also abounding in game-deer, hares, wild-cats, partridges, korhans, pauws, and secretary birds, starting from every bush; wild ostriches scampering away on the distant horizon; and springboks having a tameness which was shocking, for they would stop waiting to be shot at, and would almost look into the barrels of the sportsman's fowling-piece to see whether it was loaded! In short, we were strongly reminded of the Frenchman, German, and Englishman, who were individually asked to describe a camel, not one of them possessing much information respecting it or having ever seen one. Each of the two former gave a description which was in complete accord with his own national idiosyncracy. The Frenchman's was wordy, florid, and full The German drew a philosophic picture out of his own inner conciousness. Both described an animal which was like nothing in the heavens above, or the earth beneath, or the waters under the earth, a thing which a Jew might have worshipped. The matter-of-fact Englishman, however, quietly strolled into the "Zoo," and there, with an actual live camel before him, wrote his description.

The eye is more reliable than the ear; seeing is believing; and with the experience of a somewhat prolonged residence in the Karoo we purpose to deal with facts, as they have come under our own observation. Moreover, we cannot but think that a record of such facts will be new to many, and not uninteresting in themselves, and

they may possibly be of some economic or commercial use.

There are few parts of the world where the face of nature assumes so many different aspects as the Karoo. A few days of rain transforms it from an arid barren desert, possessing not a single redeeming feature, into a charming garden. The change which we have seen effected in the course of forty-eight hours is simply marvellous-so marvellous that it must be witnessed to be fully comprehended. During February and March, the vegetation presents scarcely a single redeeming floral feature,—low, stunted, barkless, Karoo bushes, with grey twisted woody stems tipped with scanty feathery tops; and decaying scraggy-looking "Mes" (mesembryanthemums) standing a few feet apart, cover the veldt as far as the eye can reach. The soil between the bushes is so dry and hard that all the lesser plants are parched up showing not a vestige of leaf or stem. the slightest breeze clouds of dust arise, choking the already thirsty traveller, filling his eyes, ears, and pockets with sand. All is discomfort, everywhere is discomfort, and excepting the neutral grey harmonious colouring of the whole with the lichen and the bare rock, beauty there is none. But no sooner do a few rain-showers fall than a most magical change occurs over the whole scene. sultry breezes cease, and genial temprate ones follow; every withered bush begins to bud; the soil between them becomes covered with beautiful ranunculus and other flowers,—the desert blossoms like a rose; and this change is not effected over a small tract of country but over hundreds of square miles. Equally true it is that all this marvellous beauty and brightness may be but transient; for should a cold or wet day supervene, every floweret closes and nothing but a poor, thin, grey stem appears. Renewed sunshine, possibly on the very next day, is hailed by the bright petals opening again-Nature once more unfolds over the Karoo her flowery mantle of marvellous beauty.

These sudden metamorphoses then easily explains the contradictory accounts one receives from persons whose veracity cannot be doubted.

Each observer has seen out one side or the shield.

Take another phase of the vegetation of the Karoo. All the year round, excepting for about eight weeks, from November to January, the prevalent bushes are flowerless—neutral tints alone meet the eye on all sides. But during these eight weeks all sombre hues vanish; beauty and brightness then reign supreme, for the whole veldt becomes literally covered with gay flowers of many hues. Then are seen aloes gracefully bending their rich crimson velvetty heads over their more modest but long-lived little brother, the "Canna doet." Bulbs with delicate flowers, and crystallized iceplants occupy the richer soils. Bright, green-leaved Mes, and tall sugar bushes are covered with clusters of bloom in most places. Forget-me-nots are rich with azure blue blossoms and the pink gummy, tiny-leafed fly-catcher every river-bed is fragrant with the perfume of the wild-thyme and pepermint; while the banks above are odoriferous with the pomatum bush and

the delicate scent or the yellow flower-bunches of the long-spined camelthorn acacia, the leek-green milky euphorbia and the unique ghaap (Stapelia)\* decorate the stony hill-sides, while the mountain tops are adorned with natural wreaths of immortelles, made up of everlasting flowers as if in memory of departed winter.

Sheltered, well-watered spots produce the peach, apricot, orange, apple, and pear; while patches of the broad alluvium reward the industry of man with corn and mealies fifty, sixty, and seventy fold. Thus changeful in colours, like its own chameleon, is the Karoo; and a residence through the round of the seasons is necessary to

enable a person to see it in its many forms.

Nature has many charms in the Karoo, as elsewhere. Her face is adorned with many beauties, and her bosom heaves with many and varied forces. She beckons us to look at her, and to hold converse with her. Inviting in her plainest garb; but decked out as an African beauty, with wonderful plants, gorgeous flowers, and veiled by the ethereal gauze of summer, or clad in her wintery mantle of snow, tinted with the rich hues of the rising or setting sun, she is bewitching indeed in her silent harmonious eloquence.

<sup>\*</sup> The ghaap (Stapelia) is, perhaps, the most peculiar and interesting plant in the district. It belongs to a series of succulent plants which grow in very dry stony spots in the Karoo, Namaqualand, and Damaraland. In the dryest season, from their juicy nature, they afford to the thirsty traveller, when all other sources fail him, a means of quenching his thirst. It is difficult to give a description of the ghaap. A friend of ours asked Mr. McGibbon, the Superintendent of the Botanical Gardens, to tell him like what other plant the Stapelia was. "Like itself only," was the reply. This is strictly accurate. This family of plants stands almost alone in the world—an enviable position. The late Governor, Sir Henry Barkly, got together during his term of office, perhaps the finest collection of stapelæa of any one living; he can also boast of possessing more of their flowers than any other collector. Let us attempt to describe a speciman. Suppose thirty or forty spring gherkins to grow erect from a creeping stem giving out violets, and one has an indistinct idea of the ghaap; but with this difference, that the plant has no leaves, and the blossom, a kind of cross between the passion flower and the convolvolus, buds, as it were, out of the side of the gherkin itself. But in these latter days of Botanical discovery and research, there is nothing new under the sun. For, exactly one hundred years ago, Hugh Masson, an assistant at Kew Gardens, and an accomplished botanist, was sent out by the British Government, to collect this plant and discover its characteristics. Masson found, doubtless at no small cost and physical endruance, more than eighty species and varieties of it. These, on reaching home, he described and illustrated in a splendid work, a work that would reflect credit on any publisher or engraver of the present day. In better hands than that of the sheep-farmers, or in a more thickly-peopled country, the ghaap would soon rise into a higher position of economic importance. Peeled and put into vinegar it forms a most delicious pickle. But like many other good things the Stapelia must "live its time." A thing of beauty and rarity, it has always been; it is yet destined to be a joy, for a good edible future awaits it,

### Tines.

The sea runs high, and winds blow loud, Fierce tempest rends the sail, As rides a vessel bravely through The dark and fearful gale.

The sailor's shout is heard o'er noise Of thunder, wind, and sea, O'er creak of ship, o'er crash and roar Of waters on her lee.

But in one cabin all is still—
A pale form lies therein;
The dews of death o'erspread his brow,
All storms now cease for him.

A year ago his home he left, A youth, so bright, so fair, To search for health in foreign climes Which was denied him there.

Alas! the finger of disease
Too deep an impress made,
For sunny clime to chase away
Its deep mysterious shade.

It deepen'd o'er him—day by day He felt it fold around, Sapping his life by slow degree; And longing for the sound

Of loving voices in his ear,
"Back to my home he cried,
I'll go, for here I cannot die—
No lov'd ones by my side."

He saw his sister's bright blue eye His mother's tender smile, And fondly hoped he'd linger long 'Mid his home circle. While

They tended him with kindly care, And o'er his couch they bent, The hours would glide so happily Till life, at last was spent. But vain. Ah! vain, his hopes—for now
The good ship nears the Port.
To-morrow! and the voyage is o'er
The harbour reached, the storm brav'd out.

Alas! for him—his journey through Life's changeful main is done. No more for him shall rise or set To-morrow's glorious sun.

He sleeps, he sleeps,—around his couch See kindly strangers stand, And weep to see that young brow chilled By death's stern icy hand.

No loving eye gazed on his brow; No Friend—no lov'd one nigh; A wanderer on the stormy deep He laid him down to die.

The morning broke so bright, and calm, The ship at anchor lay, And joyously friend met with friend Parted for many a day.

But sad the hearts of those who came
To meet their Brother—son—
And find his pale cold lifeless form—
"Oh! God, Thy Will be done."

Nona.

# 3 "Jurbeyor's" Story. By Himself.

My name is Peter Johnson, and I am the fourth son of a large family residing in the Fort Beaufort Division. Unfortunately for me my father did not live in the Colony in the "good old times" when fortunes were so easily realized, and it took him all his time to find bread to put in our mouths, so that we boys did not get much education, except what we could pick up from a travelling school-master, who having left one situation, would be on the tramp looking for another, and stay with us, teaching us for his board and one or two pounds a month, till a longing for a spree would cause him to decamp, and we would have a glorious holiday, until the next itinerant teacher would call our way.

Well, I grew up, and at the age of sixteen, being a sharp lad, managed to get enough schooling, to enable me to write a legible hand, read correctly, and, best of all, count my money, and know how to take care of it too. But not being sufficiently educated to get a situation as counter-jumper, or any other profitable and genteel employment, my parents were rather nonplussed what to do with me. I was too wild and reckless to take to agriculture; I broke more ploughshares, my father declared, than I was worth, and getting up early to look after the farm was my great aversion. A tradesman I would not be; I should never have patience to plod on year after year, and my father did not force me. He had sent me on a month's trial to a blacksmith, who sent me back after the probationary month with the information that I had too much "animal nature" in me, and destroyed the tools, or was such a young Sampson that iron or wood could not withstand me. Two of my elder brothers were engaged in the carrying trade, and doing well at it, and I wished to pursue the same calling, but my father could not afford to give me a turn out, and Jack and Bill would not let me go with them. I felt quite miserable at this period of my existence, as, like most Anglo-Africans, I wished to do something for myself.

Just at this crisis of my life, the Diamond-fields were discovered. Eureka! this was just the thing for me. A solemn conclave of the family was held, and it was decided that I and Tom, a younger brother, should go and make the fortune of the family. Jack and Bill quite envied me the chance, and would have gone themselves if they could have left their homes. I was highly delighted at the prospect before me. Visions of untold wealth opened up to my view. What promises of presents I made to my friends! There was to be no more struggling with poverty for my parents; no want of anything that money could buy for my sisters. Only let me get to the I ields, wealth would be our portion. I talked so confidently, that my parents became infected too, and we began to mark out the site of a new house that was to be built out of the first profits of the

diamonds.

Great and varied were the preparations made for my departure to this promised land, flowing with diamonds and gold. Well, behold me one sunny October morning ready for starting. A small tent wagon and twelve oxen had been provided me. The wagon was supplied with every necessary for my comfort on the journey, and at the Fields,—bedding and portable table and chairs, a box for clothing, another for food, cases of preserved provisions, and tools for digging and working filled up the wagon, while, stowed away at the bottom of my clothes' chest, was a large cash-box, in which I was to put, not all, but a part of my money; the greater share was to go to the bank, and in my chest was a small case of medicines, my mother's special gift, with strict injunctions to use the contents on the slightest symptom of illness.

After many an adventure, such as colonial travelling entails, we

arrived safe on the Fields, encamped on the banks of the river, bought our claim, gave ourselves two days' rest to look about, and become acquainted with the topography of the place, and then set to work. How we worked in that claim! Every fresh bucketful of stones we brought up we expected to find an immense diamond in it. From early morn till sundown we stood in the river searching for precious stones, only taking a few minutes to snatch a mouthful of food. Nothing daunted us, and though we were rather disappointed, as week after week went on, and only a small diamond of half a carat rewarded our toil, yet with undiminished hope we worked on, selling an ox now and then to get funds to carry on operations with: the wagon we used as a house to live in. Months thus passed by, and our ardour began to abate, for nothing worth speaking, of had been found, and our stores of provisions were exhausted, whilst our oxen were decreasing rapidly. We then determined to go to the dry diggings at the New Rush, having only six oxen left to pull the wagon, and two pounds in money. By this time, our prospects of realizing a fortune were not so bright, and our letters home began to assume a gloomy tone. I determined now that I would only work long enough to gain sufficient to set me up as a "Kurveyor." We were a little more successful this time, and after working harder than a coolie for two years, I had enough money to buy myself a wagon and span of oxen. I sent my younger brother home with the other wagon, and filled up the span out of his share of the profits. my wagon I began to ride loads at short distances, and with the proceeds of the loads, and a little money I made in other ways, I bought another span of oxen, and now began to think of turning my face homewards; but before starting, I induced a pretty girl I loved to unite her fate with mine, and having obtained a license, we were married one morning, and two hours afterwards, we set out for the Free State to look for loads of wool, These I obtained, and with wife, wagons and loads, proceeded on to "the Bay." My oxen were in good order, and I soon reached my destination and loaded up again for Bloemfontein. Rates were high then, and kurveyors were deemed "good marks," so that what with paying the proceeds of my loads, and leaving my old oxen as security, I found no difficulty in obtaining another wagon and more oxen. I left my wife at my mother's till I could provide a home for her, for all we had towards housekeeping was bedding, and a plated fork, the last of those I took to the Fields. On my arrival at Bloemfontein, which I reached safely, having only capsized the wagons twice, I found I should have to wait sometime for wool. As this did not suit my impatient spirit, I started for Smithfield to look for loads there, and having succeeded, once more wended my way to Port Elizabeth.

Those were glorious times for kurveyors. During the years 1873 to 1876 they were considered to be the most prosperous class of persons in the Eastern Province. Oxen were bought and sold for from fifteen to eighteen pounds a piece. I did well, and if I had not tried to

speculate too largely in live-stock, would have been a rich man to-day. We were getting sometimes thirty, sometimes forty shillings per 100 lb. to the Fields, and I found myself in the year 1873, at the age of twenty-three years, the possessor of five wagons with sufficient cattle to work them. I had hired and furnished a house in a village, and was quite a big person in a small way. I was requested to take part in any public affairs that were going on, my name was respectfully solicited on every subscription list, my custom was sought after by the shop-keepers, my presence or absence noticed from the places of worship; my friends made a great deal of me, and altogether I began to taste the pleasure of being the possessor of property. Business went swimmingly on. I met, or renewed my bills in part as they became due, for I was a great hand at selling, as well as buying. The manager of the local bank used to be quite glad to see me, and would say, shaking hands, "How do you do, Peter? Brought some more bills to discount?" And here was I who, three years before had not five shillings of my own, carrying four or five hundred pounds at a time from the bank, and paying the same in again too. I bought on every side, wherever I could get credit and saw a chance of making a profitable investment, and never thought of saving money.

This lasted till the "War Scare" came, and caused the great depression in trade. My bills became due, there was no loading to be obtained, oxen had gone down in the market, and what I gave sixteen pounds for I could not get five for. The blow was sudden and terrible. Creditors pressed and sued me on every side. My property that I had acquired with such care and trouble was taken to satisfy the rapacity of agents, and at last I had to succmb and

seek refuge in the Bankruptcy Court.

And here I am now the once rich and envied Peter Johnson, poor, and working for my daily bread, with a wife and two children to keep, yet hoping that the wheel of fortune will take another turn,

and that I am still destined to become a rich man.

My mother tells me that I made too much haste to be rich; that wealth and position can only be acquired by years of toil. She says that it is the great fault of young men in this colony that they expect to realize a fortune in a few years, and that they run up the structure so quickly, before the foundation is secure, and all comes toppling down.

Stockenstrom.

RUBY.

# Band in the Cape Colony.

(Concluded).

In a recent article, I entered upon the subject of transfer duty regarded as a hindrance to transactions in landed property, and also made some allusion to its effect in checking the influx of capital and immigration. It may be well to add a few words upon this part of the subject.

It rarely happens now-a-days that emigrants have not the opportunity of learning something of the manners and customs of the people among whom they intend to cast in their lot. The back woods of America were famous before Dickens drew his fancy picture of Eden, but the chronicler or novelist who shall succeed in making South Africa a household word, has yet to arise.

The general ignorance that prevails with regard to the Cape is partly the fault of the Government in not sufficiently advertising the colony, partly the fault of the peculiar institutions of the country,

and partly the fault of the people themselves.

It has been stated that there are places on the western coast, where the advent of the stranger is looked upon as the direst of calamities, and there are other districts where the same idea prevails in a somewhat modified form. Let the immigrant come as the patient, hardworking drudge, he will be welcomed, but let him buy out one of the old families and he will at once find himself in a foreign country. The unaccustomed local terms, and the prevalence of the Dutch language, the strange roll given to the R in speaking English, and the interchange of sundry letters, combined with the silent H, which the continental origin of the people would lead us to expect, albeit infinitely preferable to the gratuitous Cockney introduction of this much abused consonant, all tend to foster the delusion; and although it may be assumed that the course of parliamentary legislation will to some extent succeed in reconciling the discordant systems of jurisprudence, it appears to be admitted that a lengthened period must elapse before even a degraded English will become the language of the common people.

The Colony now embraces a vast extent of territory, and while every purchaser of land is more or less influenced by the two classes of circumstances, formerly enumerated under the head of certainties and uncertainties, the British agricultural capitalist is virtually excluded from the settled districts. Why should he come to the Cape, where the first condition of settlement is the payment to Government of four per cent, on the amount of his purchase-money, when in another colony he can obtain fully as great advantages by the expenditure of at most a £5 note in the way of office fees for the

registration of his title?

The small agricultural capitalist is equally excluded from the

settled districts by the dislike of owners of property to grant leases, and in consequence of the original wasteful allotment of the public lands is driven to take up Government ground in remote places, there to increase, it is true, the strength of the Colony, but in inverse ratio to his distance from the great coast centres,—for it must be evident that a population confined within narrow limits will advance more rapidly in everything than an equal number of persons dispersed over a country ten or twenty times the size; in the same way that a redundant white population denied egress from certain narrow districts of the coast must perforce take to the ocean, laying the foundations of a maritime state, while, under present circumstances, with a scattered population extending to the Orange River, the mercantile marine of the Colony is limited to a few small coasting vessels.

The unwillingness of landowners to grant leases is not altogether surprising, when it is borne in mind that the tone of morality in young countries is not always of the highest order. People are not as careful as they should be to distinguish between meum and tuum, and possibly one of the first acts of the tenant would be to denude the farm of what little timber, bush fires and the greed of former proprietors had left. Landowners, however, should bear in mind, that he who grants a lease is really borrowing the tenant's capital, not only without interest, but with the reversion of all his improvements, to say nothing of the increased value given to the property in the mean time. It is, therefore, the landlord's interest to grant a lease for such a number of years as will allow the tenant to put forth his whole strength with the certainty of recovering his capital at the expiration of the term. As a proof of what security in the employment of capital will do it is only necessary to refer to the prosperity of the province of Ulster, as compared with the rest of Ireland, where tenant right does not, or did not until very lately, prevail, and any one who has travelled in England cannot fail to have been struck by the difference in style and appearance between two adjacent farms one of which is held on lease, and the other on an annual tenancy. The length of time for which a lease should be granted will of course vary in different countries according to the staple products of the soil.

In England, where high farming is the rule, twenty-one years is a common term. At the Cape a very much shorter time would suffice except in the matter of vine growing. There are conditions under which a man might even be justified in planting a vineyard on a lease, such, for instance, as the existence of a wine-making establishment at some place in the neighbourhood. It is possible that in this way thousands of acres are capable of being brought into mixed cultivation, which otherwise must remain a desolation to the end of

time.

Frem what has been said it will appear that education and density of white population are important factors in the solution of the land problem, and even railways cannot be fully developed unless population goes hand in hand with them.

There is also another most potent engine at present totally excluded from exerting a revivifying influence upon landed property. This is the British associated capitalist. Among a dozen colonial land companies figuring in the London daily share list, some of them at high premiums, the Cape is entirely unrepresented. It may be, though I am not aware of it, that there is something other than transfer duty which is hostile to the establishment of a lands improvement and colonization company, just as the out-come of the theory of the Roman-Dutch law as to the trusteeship, strikes an English-

man the moment he sets foot in the Colony.

For every half-dozen instances of associated enterprise devoted to supplying the daily wants of the living, it would be easy to point out nearly an equal number, of which the object is to administer the affairs of the dead. The country is overrun with associations which under the name of Boards of Executors, Estate and Orphan Chambers and so on, perform functions in consideration of a commission which, under the English law, are held to be purely honorary. It is probable that these associations might if differently worked, and without compromising the funds entrusted to their charge, be of the greatest assistance to the landed interest, but when their constitution comes to be inquired into, it will be found that they are guided by the narrowest spirit of self-interest.

The object of a land company, such as has been indicated, would, amongst others, probably be to buy up huge unwieldy estates, subdivide and settle them, to take over and consolidate existing encumbrances, enable landowners to sell portions of their property, and create new farms, to advance money for building and permanent improvements, and generally to aid in performing all those acts which an enlightened and wealthy proprietary would do for themselves

were they in the position of free agents.

Let, however, the attempt be made to work an institution such as this in the face of transfer and auction duty, and I shall be well content to leave this poor effort of my pen to the judgment of the

Board of Directors.

At the risk of being tedious I have devoted too much time to considering the land question from the stand-point of the seller, *i.e.*, of the general body of landowners, who, if not sellers to-day, may from time to time become so, and my excuse must be that it is the landowners, who, through their representatives in Parliament, rule the roost, while the influence of the educated and trading classes is as nothing in comparison.

We will now turn to the question of transfer duty as affecting the Government, and this part of the subject may be dismissed with a

proverb.

It has been somewhere observed that "light gains make heavy purses, for light gains come thick, whereas great gains come but now and then." As with individuals so with Governments, the nimble ninepence will ever out-run the occasional pony.

The actual yield of transfer duty does not concern us in a paper of this kind, and even were I to quote figures the result would be entirely fallacious. So long as the public is in the dark as to what proportion of the revenue is the direct result of sales of landed property, it is best to let figures alone and reason from analogy. Care must be taken to discriminate between the economical effects of taxing sales and taxing inheritances, and with the latter part of the

subject I have nothing to do.

The Cape has now been running in a groove for more than two centuries, and certain results appear on every hand, but I think we may assume that during the course of the last seventy years every part of the colonial system has been improved. The able and exhaustive report addressed to Parliament last year by the Surveyor-General would, however, appear to show that the improvements with respect to landed property have chiefly taken the direction of improvements in tenure, and that matters of finance as connected with the land remain in pretty much the same condition as in the days of the Dutch East India Company. Of the financial policy of that time the less said the better, and I only allude to it because where some things have been acknowledged to be based upon wrong principles and have been altered accordingly, others may remain which only require to be pointed out for their evil influence to be seen and admitted. The fact of a tax being borne in silence proves nothing. It is well known that farmers are a long-suffering race, living for the most part isolated from each other, accustomed to put up patiently with anything their fathers have borne before them, and without troubling to inquire too closely into the operation of a particular impost, which in the present instance is rarely brought home to themselves.

We may consider, then, that transfer duty is a relic of the Dutch East India Company, and an expression of the narrow views that characterized all its dealings To find a parallel we must go back to the days of loan places. The same idea runs through both, that of the perpetual ownership of Government in the soil, and its right to resume possession whenever a vacancy occurs. Practically the landowner is simply a tenant for life, and if he chooses to divest himself of his property during lifetime by a sale, such sale is incomplete without the assent of Government to the admission of the new tenant, and this it accords as an act of grace, permitting the purchaser to compound for admission to the status of the late occupier by the payment of a sum of money; a state of things which according to English ideas, is radically wrong and prejudicial to the best interests of the Colony.

It is not, however, until we come to consider transfer duty from the standpoint of the buyer, that the disproportion between the advantage derived by Government and the strain upon the resources of the taxpayer becomes fully apparent. Landowners must have a shrewd suspicion of the truth, that in some shape or way the tax will

come out of their pockets, or they would not hold on to land as they do, under circumstances where it is manifestly advantageous to sell. The consequence is, that an estate rarely finds its way into the market until the proprietor has reached the last stage of insolvency. As long as there is a chance of anything turning up he muddles on, knowing that if he can just manage to bequeath the place to his children, no matter how heavily mortgaged, he will have succeeded to a great extent in averting an inroad upon the family stocking; for it must be evident that the difference between what the children would pay under an inheritance of real property, and what a stranger would pay on acquiring the same by purchase, constitutes the premium offered by Government for keeping land out of the market. A glance at the insolvent list will serve to show how disastrous this holding on at any price policy may become to all parties concerned. The buyer succeeds to a starved and impoverished estate, the buildings out of repair or ruinous, and with little timber left to help him in his immediate and pressing needs.

It is at this moment, too, that Government sees fit to exact its pound of flesh, and unless the man be a capitalist, which buyers in this country seldom are, one of two things must happen, either needful improvements must be deferred, or the money must be raised by way of loan. Now money in this part of the world is very scarce, the rate for advances upon first mortgage six per cent., and for ordinary business transactions much more, therefore in any circulations we may make with respect to the loss occasioned to individuals through the operation of transfer duty, we must put ourselves in the position of the indigent farmer who has to raise money to pay the

tax.

Sooner than defer needful improvements, or render himself liable to a succession of fines, he may perhaps be willing to pay eight or ten per cent. for a loan. To him it may be a question of compound interest, while to Government the advantage of obtaining payment in a lump sum is either nil, or at most four and a half per cent., according as to whether it can afford to keep a balance at its bankers, or is obliged to borrow.

For the sake, then, of the paltry revenue derived from transfer duty on sales of property, and the infinitesimal advantage arising from levying the amount in a single sum, the tax has to be paid twice over—directly by the buyer, and indirectly by the seller, in the reduced

price he obtains for his estate.

I have now to the best of my ability performed the promise with which I started, and it only remains to throw out a suggestion or two as to the lines in which improvements should travel. In this I am aware I am venturing upon perilous ground, but as the first part of this paper was deemed worthy of publication, it would be unhandsome to shirk the subject altogether.

Under present circumstances it may be five, fifteen, or fifty years before an estate that has once paid transfer duty will again contribute

VOL. XV.

anything to the revenue. As, however, there is no reason why Government should enter into calculations with regard to the average duration of life, it might be well to name an arbitrary number of years over which buyers should have the privilege of spreading their payments of transfer duty. This would have the effect of relieving them from a most onerous burden, but without at all touching the main point at issue, that of the propriety of statutory restraints upon the free transfer of property, and the justification upon economical grounds of the present method of raising the land revenue.

A system of deferred payments would also have the advantage of gradually accustoming people to the idea of a land or property tax, which with a reform of the customs tariff, would probably follow the

abolition of transfer duty.

The existence in the western districts of a great number of family properties, has led me to inquire whether the Dutch Government systematically discouraged sales as at present, but circumstances have prevented me from pursuing this part of the subject. I find, however, that within the last twenty years the official ideas with regard to transfer duty have undergone some strange mutations. At the beginning of this period purchasers appear to have been favoured, then heirs were placed upon the same footing, and the rate of duty increased from two, to three, and afterwards to four per cent.

Later, inheritances began to be encouraged and have continued

first favourites to the present time.

The English system is the reverse of this, permitting free transfer from hand to hand, but levying a succession duty when lands pass by way of inheritance, at rates varying from one or two per cent, to the

near kindred, to ten per cent. to the stranger in blood.

In approaching the conclusion, it will be necessary to add a few words upon the subject of mortgages, and regard being had to the direful results of this system as seen in the condition of the people, I have no hesitation in saying that mortgages should not be encouraged. In the old days of Greece it was customary for the creditor to erect a pillar at the entrance to a mortgaged farm with the amount of the debt and the lender's name carved thereon, and the continual presence of this memento must have served to convey to the mind of the debtor a feeling of ignominy. In our days mortgage pillars would be an anachronism, but the same purpose would be served by the annual publication of all mortgages in the Gazette. This in its way would be as good as a census, and could be no outrage upon mortgagers, for at present any one can obtain all the information he requires by the payment of a small fee.

The Athenians relieved debtors by debasing the currency, but we can only proceed in the narrow paths known to political economy, looking to effect in the course of centuries, changes which in former times were brought about in a day. The abolition of transfer duty upon sales of property, by appealing to the self-interest of the mortgagers, would be one of those slowly operating but certain

methods, which would in time change the face of this Colony, making poverty every where give way to affluence. The institution of a land or property tax, would hasten the process of disintegration, and if further impetus were needed to assist in making up the leeway of

two hundred years, such might easily be given.

Turning to the subject of auctions, I think any unprejudiced person will yield the palm to the English system, which pre-supposes that the buyer is worth something, and not a mere man of straw. In England the buyer pays his deposit at the sale, and if he does not come up to time with the balance, the deposit is forfeited, but at the Cape the system is so framed as to deter many men from ever attending an auction at all.

The subject of sale by diagram having at last attracted the attention of Parliament need not be gone into, further than to observe, that Responsible Government standing in the position of heir to the Dutch East India Company, is as answerable for the errors of that time, if it leave them unredressed, as if it were itself the perpetrator.

Hence questions of re-survey become of colonial, not of mere local importance, and innocent landowners should not be liable to be mulct in perhaps hundreds of pounds for a state of things due to the

original default of the Government of the country.

Perhaps in conclusion, I ought to apologize for any hard things I may have unwittingly said, but if no one ever ventured to speak, the

world would come to a standstill.

It has been said that he who wishes to stand well with the public should tell it nothing but what is likely to please; as, however, it is improbable that the reforms suggested above will be popular in our time, I can with the greater confidence address this paper to the next generation.

H.

### Minemospne.

"There's rosemary, that's for remembrance; pray, love, remember: and there is pansies, that's for thoughts."

When we were young, and every thought Gave rainbow-vested Fancy scope, With eager hands we deftly wrought Refulgent coronals for Hope.

Now watching through a mist of tears, The sun's slant rays stream softly down, For Memory, hallowing the years, We grateful weave a violet crown.

Our souls are kept in balanced calm, Our path is bathed in amber light, And soothing fragrance as of balm Is shaken from the wings of Night. Then Memory, touching silent strings, Will murmur tunefully and low, And tides, responsive as she sings, Sweep in our spirits to and fro.

And angels, as the cadence dies,
A door in heaven gently ope,
And morning-freshness fills the skies,
And Memory shines transformed to Hope!

Oh Memory! take the crown we bring Of lowly, fragrant, sad-hued flowers; We thank thee for the hopes that spring From former days that still are ours.

T. W.

Paarl.

## Colonial Comparisons.

#### SOUTH AUSTRALIA.—By W. HARCUS.\*

The writer of the following brief notes on the above publication, at first intended to treat his subject in a different manner, but found himself obliged to take the book chapter by chapter. As there are but few copies of Mr. Harcus' work in the Colony, it was thought that extracts with a sort of running commentary would not be uninteresting to those readers who know something of the agriculture and politics of this Colony, and who would be glad to compare the progress, industry, and institutions of fellow-colonists in the same hemisphere.

The colony of South Australia is situated between Lat. 11° and 38° S., and about one-third between Long. 128° and 1383° E., the remaining portion between Long. 128 and 136. Any one looking at a map of Australia will perceive that South Australia is a misnomer, as the colony comprehended within that area cuts the whole of this fifth continent of the world in two, so that in fact the southern portion, of which Mr. Hareus treats almost exclusively, gives us little or no idea of the soil and elimate of the midland and northern regions, which are separated from South Australia proper by what is called Goyder's line; and what has struck me, and will probably strike the reader, is, that the eapabilities and the upset Government price of land of LI per aere is given, whilst the intrinsic value of the immense extent of territory beyond the above line is not mentioned, though, according to Trollope, he passed through regions where no rain fell in 1865, and that could only maintain one sheep on ten acres, which description of stock was sold at Adelaide for less than one shilling each, after being driven more than 300 or 400 miles,—a far less promising

<sup>\*</sup> London: Sampson, Low, Marston & Co., Fleet-street.

state of things than what was in Lord John Russel's mind some years ago, when he told our then Governor that people living in such a perfect desert as our Karoo could not expect to have magistrates within their reach.

But Mr. Trollope is supposed by some to have been too rapid in his movements and to have been prejudiced against the new settlement by his friends and relatives in another Australian colony—who nick-named the new intruders Cockatoos, because they merely seratched the soil.

The accurate statistics of Mr. Hareus were published three or four years after Mr. Trollope's work, which last is to be found in many of our Cape libraries; but as Mr. Trollope is now amongst us he will here have what he had not in South Australia, I mean Mr. Noble's excellent "Descriptive Hand-book of the Cape;" and should he visit any of our wine farms we must hope that he will not say of our wine, that he was obliged out of mere eivilty to his host to smack his lips and call it good. The new wine company had better keep an eye upon "Capt. Grose," for he will be "among us takin' notes, and faith he'll prent it."

But to my tale: South Australia was founded in 1836. As originally settled the colony contained 380,328 square miles, or 245,329,920 acres; the total area now comprises 914,000 square miles, or 585 millions of

acres.

We can pass over the first chapters of the book, which contain nothing of very great interest to ourselves, except that the colony was founded on the principles of Voluntaryism in Church matters, though some of the first Governors did attempt to insinuate the Church and State system, and that the non-introduction of convicts was made a sine qua non from the commencement, and is to this day strictly guarded against, as regards

Western Australia where the convict curse remains.

The fourth chapter gives a history of the different Governors, which does not concern us much, though few will read the following extract without great pleasure and satisfaction: "Probably Governor Gawler did the best he could under the circumstances; but the Home Government were dissatisfied with his administration, and treated him in a somewhat scurvy manner. Captain George Grey, a young officer who had been exploring in Western Australia, on May 10th, 1841, walked into Government House and presented to Colonel Gawler a commission appointing him (Captain Grey) Governor of the Province in succession to Colonel Gawler. However hard this might have been for Governor Gawler, there ean be no doubt it was of great advantage to the colony. Captain Grey began his administration by the display of those high qualities of prudence, firmness, and decision which he subsequently exhibited at the Cape and in New Zealand. He commenced a policy of retrenehment"; and, further on: "Governor Gray's administration will always be remembered with satisfaction and gratitude. He first inspired the people with a feeling of self-reliance, and taught them to live within their means." At the end of this chapter it is incidentally mentioned that the salary of the last three Governors has been £5,000, the private Secretary receiving £500, and the Aide-de-Camp [150.

In the fifth chapter which gives perhaps too fascinating an account of the capabilities of the southernmost portions of the colony (for we must not forget that the object of the writer was to stimulate immigration from Europe), even their Namaqualand is not left without praise, and indeed if we are to believe Trollope the copper mines in the arid districts were the origin of the prosperity of Adelaide, much,—I suppose, as the diamond-fields resuscitated the trade of our sea-ports, and served to put a

spur to our agricultural industries.

"Magnificent plains" says Hareus, "of agricultural land, mountain ranges, stretching for hundreds of miles and often covered with large timber, chiefly Eucalyptus, and lovely and enchanting valleys through which in winter, creeks—in some instances deserving the name of rivers— On the other hand there are in several parts of the colony long stretches of arid plains on which vegetation is stunted, and cultivation is difficult, if not impossible. On these plains, however, the greatest mineral wealth of the Province has been found, and there is every reason to believe that the earth is still full of riches, which only want the employment of capital and labour to develop. For many years, ever since Stuart completed his journey across the Continent, it was supposed that Central Australia as a whole was a wretched country, which never could be turned to any profitable account. One result, however, of the spirited enterprise of South Australia in carrying a telegraph line from Port Augusta to Port Darwin, has been to prove that there is an immense territory, capable of carrying large herds of horses and eattle; and already some spirited young men have gone out far beyond the formerly recognized frontier to commence pastoral pursuits, with every prospect of success. The southern part of the colony is wonderfully productive. The finest wheat ever grown in the world has been grown within a few miles of Adelaide. International Exhibitions both in England and on the Continent South Australian wheat obtained the gold medal for the finest exhibited by any

Let us draw attention to this statement; and if we do not wish to make a mull of it as we have done before—at anyrate endeavour to show as

good baart wheat from the Cape as can be grown anywhere.

The author then goes on to say that all European fruit, apples, pears, gooseberries, filberts, are produced in the southern parts, but in addition grapes, peaches and the like; he had seen whole acres of orange trees laden with golden fruit to the very ground, blossom, green, and perfectly ripe fruit, simultaneously as in our Table Valley. A dozen pounds of grapes can be bought in the market for sixpence, and peaches for threepence the dozen. But when we are told that tropical plants can be cultivated with advantage in the northern part of the colony, such as pineapples. bananas, and the sugar-cane, it is not clear what portion of this extended territory is understood by the word northern. We know that the difference of climate between our Warm and Cold Bokkeveldt is so great as to allow cherries to be easily cultivated in the one and tropical plants in the other. Some day it will be proved that these are the localities to which railroads should be pushed, if Sam Slick's mode of calculating the increase of the value of land through the agency of the rail be anything like correct.

The climate is literally lauded sky-high. I quote again: "As the result of experience and observation, I can say men can follow their ordinary employments, without excessive exhaustion; indeed, to be fully employed appears to be necessary to enable them to bear the great heat; on a very hot day the worst thing is to be kicking one's heels and doing

nothing else."

This is a very different story from Trollope's, who tells us "that he

must confess to his opinion, that Adelaide is about the hottest city in Australia, south of the tropics; when it is hot, it is very hot-men and women sigh for nincty-five in the shade." But his state of mind and exceptional hot days, may have inclined him to abuse the climate much, as a late French Consul did that of Cape Town. "Nothing," continues Mr. Harcus, "can be more delightful than the other eight months of the year. Even when the heavy winter rains come, which flood our streets and swell our rivers from contemptible water-holes to mighty torrents, South Australians can afford to be jolly. In this colony rain is always a blessing. It gives the promise, and is the cause, of future wealth, and the more rain we have, the more abundant is our agricultural and horticultural produce. The average rainfall at Adelaide, is about twenty-one inches during the year, falling principally in the months of May to October, on about 110 days. In the hilly districts, the fall is from eight to ten inches greater. England the average is twenty-four inches. On the days, during the months when it does not rain, the climate is unsurpassably beautiful; the air is pure, soft, balmy, and cool—such as one might imagine would blow over 'the plains of heaven.' On such days, mere existence is enjoyment."

The statistics showing the average rainfall, which can be found at the end of the volume, do not give as an insight into the rainfall during certain months for a consecutive number of years; so that in comparing the number of months during which little or no rain falls, with the state of the atmosphere in those months during which generally, and in the greater part of our Colony, little or no rain can be expected, we have nothing to clear up the difficulty in trying to explain how it is that the country in the southern part of South Australia is studded with gum-trees—whilst with us, excepting in the Cape Peninsula and its immediate neighbourhood—whatever Dr. Pappe and Dr. Brown may have said, you cannot get even the gum-tree to grow without artificial watering during the

first year or two.

We now come to the sixth chapter, which may be passed over, as it merely contains a description of the number and architectural beauty of

public buildings, and so on.

The seventh chapter, however, is full of interest, and gives us an account of the Legislature of the colony and its constitution. It will be scarcely necessary to do more than give extracts, leaving it to readers to compare their system with ours—and draw lessons for themselves

according to their several views :-

"The Government of the Colony is to a certain extent after the model of the British constitution. We have not exactly three estates—Sovereign, Lords and Commons, but we have the representative of the Sovereign and two houses of Parliament—the Legislative Council, and the House of Assembly. Both houses are elective, but only the Assembly can be dissolved at the will of the Governor. Every four years, one-third of the Council retire, but they can offer themselves for re-election."

After mentioning the old Council of 1851—partly consisting of nominee members, we read that "very soon, however, the people began to agitate for fuller Parliamentary representation and Responsible Government in its widest scope. The men who drew up the present Constitution Act, held very liberal views in politics, and they went boldly for manhood suffrage, and vote by ballot. At that time in England, such suffrage, was regarded as the wild dream of unpractical political Chartists and vision-

aries. There were a few of the old Tory School in this colony, who held very much the same view; and great and glorious battles were fought by the Liberals on one side, and the Conservatives on the other, over the form which the infant Constitution should assume. Happily for the colony, however, the men of broad and liberal views were largely in the majority, and the present Constitution Act was passed. It provided for two branches of legislature one of eighteen members, the other of thirty-six, The Parliaments are tricnnial. The qualifications for a member of the Council are, that he must be thirty years old, whilst the electors for that body must have a freehold estate of the value of \$50 or a leasehold of \$20 annual value. The whole colony votes as one constituency. The election of one-third of the members takes place every four years. There are two defects in the constitution of the Council not easy to rectify. There is no power to dissolve it, and therefore the power of the Council is greater than that of the House of Lords, which can be checked in any pertinacious obstruction by the creation of additional peers; the other defect is, that the clection of a single member is very costly. With regard to the House of Assembly in 1873, the number of members was increased to forty-six to suit the changes in the population and opening out of new country."

We have perhaps forgotten that the late Sir John Wylde, was the first to propose an elective Council here. Perhaps the idea was borrowed by West Australia from our system. Indeed it was a remarkable fact that men like the late Justice Menzies, Mr. Rivers, and others, who were called upon to give their views when the Home Government were first induced to think of representative institutions for the Cape, came forward with schemes which must have somewhat surprised their old Tory friends

in England

Manhood sufferage, for the Assembly, though not a part of our system, is practically so, for which we have to thank the Chancellor of the Cape University; and vote by ballot which has since been introduced in the mother-country would seem to be unnecessary in South Australia, where a powerful aristocracy does not exist to overawe the dependent voters; but it is a question whether with such a large class of semi-civilized citizens vote by ballot should not be introduced, that is, if the evil of teaching men to be cowardly enough not to dare to come out with their opinions regardless of possible persecution or bribery, does not in the

long run make the cure worse than the disease.

We are next told, perhaps in allusion to Mr. Trollope's comments, that "the frequent changes of ministers have been the subject of unfavourable remarks from those who are not intimately acquainted with the actual working of Constitutional Government in these colonies. The real fact is, political parties in this colony are not strongly defined, and we have not reached the wholesome system of governing by party, which has worked so successfully in the old country. We have few of those 'burning questions' which divide parties so strongly at home. We have no ecclesiastical questions to trouble us, and no foreign relations to disturb us. There is but little of what is known as loyalty to a party. Any man who is strong enough to get a majority to join him on any question has no hesitation in turning out any Government in order that he may be 'sent for' by the Governor, to form a new administration. The result is that few ministers remain in office more than about eighteen months, or two years. The Council deny that they are prohibited from altering a

money Bill, so long as as they do not interfere with those clauses providing for raising, or appropriating money. The contentions between the two Houses on this point have sometimes threatened something like a deadlock in legislation. On the whole our liberal institutions have worked wellgood Government has been carried out, and the country has made progress. The men who have been called to the Parliament are, for the most part, plain men, who know but little of politics as a science, and as a rule, are moderately educated. They are, I suppose, much on a par with the men who first assumed the Government of the United States, when they separated from the mother-country. Not a few of them are able speakers, strong in debate and lucid in exposition. They have shown, too, a large amount of administrative power. But perhaps the one fact which more than all others redounds to their credit, is that during a Parliamentary Government of more than twenty years, no whisper of corruption has been breathed against a single member. It is said that democratic institutions necessarily lead to political corruption. I can only say that it has not been so in this Colony. Members have schemed, finessed, and log-rolled to serve their districts, but never to put money into their own pockets. Indeed, so jealously have they guarded the political business of the Parliament, that to avoid all suspicion to meet their private ends, a majority has never been obtained large enough to vote for a moderate payment of members. We have members in very humble circumstances who willingly devote their time and labour to the business of the country without fee or reward, and not a breath has been raised against their public honesty."

From the eighth chapter I shall make only a short extract, or two, "Our system of election is very simple, and eminently calculated to prevent political excitement and to maintain good order. Indeed the complaint now is that our elections are tame and lifeless to a fault, and that political apathy is in some respects worse than political excitement, even though attended with a few broken heads. Still no one would like to go back to the old system. As a rule candidates travel in company, and are on terms of perfect good humour and fellowship. They often ride in the same conveyances, stay at the same inns, eat at the same tables, and shout for each other and their friends in pleasant 'noblers.' But on the platform they speak of each other freely enough—pointing out each others political sins and shortcomings, and chaffing each other unmercifully."

What has here been given, will be sufficient to give readers some idea of Mr. Harcus's instructive work; and although the volume itself contains more than five times as much matter, it will be ample space if the editor will allow a brief continuation of the same subject in a succeeding number as a conclusion. The greatest part of the remainder of the book comprises information of less value to ourselves; but the subject it is intended to draw the attention of Cape people to, being principally the productions, mode of agriculture, &c., cannot but be read with great interest by our farmers. The model farms of private landholders on the most extensive scale, the employment of the most improved descriptions of agricultural machinery, the price of labour, its distribution, or the produce of flocks in some districts, would be almost incredible did not Mr. Harcus bring forward data which may be considered incontestable.

### T'Enboye.

Dear heart, farewell: no more this joy and sorrow
Shall blend with our lips in one last kiss, thus:
We waken to a greyer world to-morrow,
Where, haply, stern Time's iron-hand may teach us
How,—weaving woof of thin dead dreams that reach us
Blown down from bankrupt futures,—we may borrow
Scant clothing of cold Hope to cover us.

Ah! sweet I would that Hope could blossom, as the roses
Which make the whole year glad, for you;—
When each reluctant flower that uncloses
Pink petals drenched with dew-drop tears, and smitten
With stray shafts of slant sunshine lightly written
In shady nooks where morning still reposes,
But brings back the old sweetness born anew.

Perchance,—when this weird world is waxen older
With hard gusts of wild wind and wet,—
When Life's hands, weak and wan, enfold her
Face,—through clouds of dead regrets and sadness,
Some sudden gleams of what we once called gladness
Shall strike:—will it not make our grief seem colder,
This hopeless happiness of days when we forget?

Yet, sweet one, hope:—if hoping thus can ever

Make this unkindness seem more kindly: can it be

That sorrow is immortal, dying never?

We know,—though born within deep clefts of cheerless mountains,—

Fed only by chill tears from frozen tountains;—
Spurned back, and baffled—even "the weariest river"
Winds somewhere safely to the sunlit sea.

## Inquiry for Two Cape Hungi.

BROOMEIA CONGREGATA BERKL, AND PODAXON CARCINOMATIS FR.

#### By Prof. MacOwan.

It is curious to observe how certain Cape plants, even some that have been well-known and cultivated extensively, suddenly drop out of sight, and are lost to European gardens. Many of these re-appear after an eclipse of longer or shorter duration. Kleinia acaulis Th. gathered by Thunberg in 1772, was not again seen till 1865, when Mr. Robt. W. Read detected it near Graham's Town in a locality beaten over by myself and others times without number. Hoodia Gordoni Sw. remained perdu nearly as long, that is, from the days of Francis Masson till a couple of years ago, when the persistent inquiries of Sir Henry Barkly brought it once more to light. Out of some scores of Proteaceæ cultivated by Aiton in George III.'s garden at Kew, scarce half a dozen remain in the splendid establishment of our own days. Leonotis Leonurus R.Br. sent to Leichtlin's celebrated garden at Baden-Baden was hailed as a long lost Cape friend. With plants of merely botanical interest and useless to the horticulturist, such disappearances may be cited in great numbers. Chamira cornuta Th. has not been collected for forty years, -Palmstruckia capensis Sond., Eriosphæra Oculus-Cati Less., and Rosenia glandulosa Th. have escaped all eyes since Thunberg's time. Beside the changes of fashion in horticulture, one potent cause for this disappearance of plants formerly well known, is the absence of any means of intercommunication between those in the colony who have but know not, and those who know, but have not. In Europe a natural object, animal, vegetable, or mineral, is when wanted, so thoroughly advertised by means of the correspondence in scientific journals, that it is speedily forthcoming. Perhaps the Cape Monthly Magazine, which enabled me to ask all its readers last June if they have seen the European "Soft Rush" growing in the Colony, may be induced to open a page to such notes and queries every issue.\*

This month the missing plant is a right royal and wonderful fungus, as worthy to be had in honour, as the Agaricus casareus L. of ill-omened and imperial memory. It is called Broomeia congregata Berkl. and is figured and described in Hooker's London Journal of Botany, for 1844 p. 193. Only three specimens exist in Europe: the original one possessed by the Rev. M. J. Berkeley,—a fragment given to me by the Hon. Chas. Brownlee, Esq., and now in the Imperial Herbarium at Vienna, and a third ecstatically pounced upon by myself in a thicket of Doorn-boom close to Somerset East. Alas! for poor Africa,

<sup>\*</sup> The pages of the Cape Monthly are always open, as a medium of communication, to workers and observers in every department of Natural History in South Africa.— ED. C. M. M.

—such rarities are only for exportation. Like the Roman "tuber," the lordly truffle of modern days, or the mullet of three pounds' weight destined to tickle the palate of Rome's master, the third Broomeia was speedily forwarded to the excellent Herr Kalchbrenner of Szepes-Olaszi in Hungaria, the Nestor of mycologists who is good enough to solve my cryptogamic doubts and correct my blunders. That is the history of the three Broomeiæ. Whosoever shall find a fourth, a fifth, or even a twentieth,—great shall be his reward in thanks from us mycologists, and his name shall be honourably recorded, booked for such immortality as belongs to Fungi and Floræ Capenses.

This lost Pleiad among fungi, belongs to the same section as the Lycoperdon or Puff-ball, two species of which, L. gemmatum L. and Lradicatum B. & C. are very common everywhere after rain. It consists of a dozen or more white globular receptacles, as large as marbles, closely packed side by side, and half immersed in a tough corky substratum. Each of these little spheroids ultimately opens by an oval mouth, and discharges a quantity of fine brown dust. These particles are the spores. When young the whole congregation of receptacles is covered over by a white papery cover which at last bursts at the edges, and is blown away by the wind. This description is enough to recognize the plant by, but there is another peculiarity by which it may perhaps be already known. It has a strong and very agreeable perfume, resembling that of the clove-pink of the gardens, with a slight soupeon of aniseed.

Yet another Fungus. Pappe in his little pamphlet on Cape Medical Plants, briefly describes *Podaxon carcinomatis Fr.*, a fungus growing on ant-hills, and used as an application to ulcerous sores. Is it known to any of the readers of the *Magazine*, and are specimens

obtainable? The description is as follows :-

"P. carcinomatis Fr. Club-shaped, peridium (outer cover) dehiscent at the base. Stipes (stem) erect, cylindrical, white. Cap ovate, tapering upwards, nearly as long as the stipes."

Expectans expectavi.

Somerset East, July 12th, 1877.

# Lobe in Death.

Das Herz ist gestorben die welt ist leer Und werfer gibt sie dem Wunsche nichts mehr, Da, Heilige, rufe dein kind zurück, Ich habe genossen das irdische Glück, Ich habe gelebt und geliebet.

Schiller, Die Piccolomini, III., 6. Cum subita incantum dementia cepit amantem, Ignoscenda quidem, scirent si ignoscere Manes. VIRGIL, Georgie IV., 488, The slanting sunbeams light the old grey walls
Of Rouen's churches with a ruddy glow;
The flickering deep'ning dusk of even falls
On mazy murky streets which murkier grow.
The setting sun sinks down apace;
All flushed and crimson is his face,
As were he wearied by his race
And sought his rest below;

So gild his rays the old eathedral towers,
They tinge the tracery of S. Maclou,
And through St. Vincent's windows, shed in showers
Upon its pavement bands of chequered hue.
They cause to blush, or richly paint
With rainbow hues the sculptured saint,
Or tomb of pure white marble taint
With stain of red and blue.

They scaree forsake the bridge which links the isle
To either bank, where throngs the homeward crowd,
On Pierre Corneille the rays last lingering smile,
But yet his statue fast the shades enshroud.
The placid Seine is gleaming grey
(Save where the poplar-shadows stray
Athwart the stream,) like milky way,
Or opalescent cloud.

The loit'rer looks down o'er the bridge-wall's edge And sees some floating object in the stream,—
'Tis lost among the alder-fringe and sedge,
And 'midst the gloom is seen no more its gleam.
'Twas something wan and weirdly white
A moment passing in the light
Then vanished strangely, just as might
Some horror in a dream.

What hath the bargeman found within the mist, Low-lying as he drifts his way to Havre?

A light—a shout—another—murmurs—hist!

What saith he? "Sainte Marie! c'est un eadavre,"

His voice floats down distinct and clear;

It falls upon the listener's ear,

And fills him with a boding fear,

The echo—un cadacte!

Not one, but two, by cords close intertwined,
A man's crisp golden curls, cheeks ruddy brown
Scarce blanched by death—a smile but half defined;
Strong, stalwart, a young tradesman of the town,
A very type of vigorous youth,
With talent, health and wealth—In truth
'Twould fill the sternest heart with ruth
To see life thus cut down.

A maid with raven tresses, and so fair
In face and form. At once the finders know
Her name and story. Yes! the smile is there
Wreathing sweet lips which tell of vanquished woe.
What sweet bud, faded ere it bloomed
Untimely, what fair hopes entombed,
And what her tale thus early doomed
Such fate to undergo?

No noces républicaines of Loire or Rhone,
Where fiends drowned tortured couples in a tide
Of blood—They willing sought the land unknown,
And bade farewell a world which bliss denied.
Their nuptial couch the river bed;
Dank river-weed enwreathes her head;
Thus they in life forbid to wed
Not death can now divide.

For "Love is lord, as time was, over death;"
Love bursts the bonds of selfish cowardice;
Love o'er the fleshly nature conquereth.
Against this, love holds earth at little price.
The sweet communion of the soul,
Two spirits blent in one sweet whole,
Removed from Passion's base control
Within the Paradise.

In sooth I envy them—each ne'er hath known Aught dearer to the other—each ne'er seen Estrangement or indifference upgrown, Nor either sorrowed o'er the "might have been." A future dull and hopeless bears No selfish soured and sorded years, No narrow spites, suspicious fears, Remorses, nor chagrin.

Yet what say I? Religion's rays but show
Their end's dark doom, by their own hands fordone,
Self-slaughter drags them to eternal woe,
Their shuddering souls their sentence may not shun;

O'er Hell's grim portal "Lasciate Ogni spcranza voi che'ntrate," Writ when "non fur cose create," Ere time had yet begun.\*

Oh ye, who lives voluptuous devote
To rash defiance of God's laws resistless—
Ye who sit round the dreary table d'hôte
Frigid and falsc—ye flâneurs who lounge listless
In cafe's chantants—ye who flay
Your simple flocks, who must obey
Lest dire anathema them slay
From priest-rid Rome their mistress.

'Tis yours to sneer at those who truly loving,
Yet hold in deepest awe the curse parental;
Such superstitious fear is laughter-moving
Ye well may jeer at act so sentimental;
Yet does your shallow hardihead,
Which strides "where angels fear to tread,"
Of mocking comrades feel no dread,
More base than reverental?

'Tis yours to launch forth excommunications
On timid youth which dares not face life here,
And weakly faithless, finds its termination;
In death's vast realm for which it hath less fear,
Yet to your fierce rapacious pride
Which, arrogating, would preside
O'er all men's dooms, there may betide
A judgment as severe.

And who can pardon that hard, selfish, blind,
And grasping influence which would uproot
The purest, noblest motives of the mind,
That it its own low aims may prosecute
To heap together sordid gain—
Society's applause t' obtain,
The soul's most god-like thoughts to chain,
To sink it to the brute.

\* Dinanzi a me non fur cose create
Se non eterne, ed io eterno duro
Lasciate ogni speranza voi che'ntrate
Queste parole di colore oscuro
Vid'io scritte al sommo d'una porta
Perch 'is maestro, il senso lor me duro.
DANTE, L'INFERNO III.
Before me things create were none, save things
Eternal, and eternal I endure,
All hope abandon ye who enter here,
Such characters in colours dim I marked,
Over a portal's lofty arch inscribed:
Whereat I thus: "Master, these words import

Hard meaning."

CAR ' TRANSLATION.

Methinks He who for us death underwent
Who best knows who were workers of their woe,
May show to them a pardoning love's extent,
And mete a juster sentence than we know.
For howsoever grave bis crime
Howe'er faith failed him for a time,
Her selfless constancy sublime,
But few can hope to show.

The Buffalo.

CLIOPHILUS.

### Volksliederen.

MIJN VROUWTJIE HET EEN SEUN GEKRIJ.

Ι,

Ek is so blij, ek is so blij,
Mijn vrouwtjie het een seun gekrij,
Hij lijk percies nes ek;
Hij het mijn oge, mond en neus
En is een dikke vette reus,—
Ek is so in mijn skik.

2.

Mijn pa is blij, mijn ma is blij, Mijn vrouws familjie oek daarbij, Hul' krij nie klaar met kijk; Van morrens vroeg tot savons laat Hoor ek maar hoe die mense praat, Dat hij zoo na mijn lijk.

2.

Partijkeer huil hij: wa owa! En trek sijn lippies nes sijn ma, Maar anders is hij soet. Die skapie is so reg gesond, Hij kijk so slim die kamer rond, En suig en slaap so goed.

4.

Johannes sal ons hom laat doop,— Sijn jurkie is al lank gekoop, Mijn nuw manél is klaar. Oom Jannie sal ons peetoom maak, Want anders is die ou geraak,— Sijn pitjes is gevaar.

5.

Een dokter en een predikant
Is allernoodigs in ons land;
Maar oek een advokaat—
Of hij nou een van drie sal wees,
Dit sal jul' later oek wel lees,—
Eers sien hoe hij kan praat!

#### THE CAPE

# MONTHLY MAGAZINE.

# Charles Ringsley.

CHARLES KINGSLEY was one of those men whose life was sure to be written. He occupied so large a share of attention in the world of English thought, and contributed so largely to the formation of the current opinions of Englishmen on subjects of the highest importance, that some record of his life could not fail to be expected from those who were able to furnish materials for his biography. too, was in an unusual degree associated, in the popular idea, with his opinions; and it was generally believed that as they who knew him best were the best expounders and defenders of his views, so the public would be in a better position for understanding his opinions when the records of his life were before them. Into this position the volumes before us place the reader of them. The work is truly what its title-page promises—"Charles Kingsley," drawn by many skilful hands guided by loving hearts: "his Letters and Memories of his Life,"—the former greatly predominating, and indeed giving to the work much of the character of an autobiography: "edited by his wife"-and so giving what some may consider an undue prominence to those sides of his character which she knew best and loved most, and carrying us into a home of contentment and peace, where the man whom the world admired, or feared, or suspected, was loved and trusted with an overflowing fulness of affection.

No reader of "Westward Ho!" will need to be told that Kingsley was a Devonshire man. He was born at Holne vicarage, under the brow of Dartmoor, in June, 1819. His father, born and brought up in the midst of opulence, was impoverished by the negligence or dishonesty of his guardians, and compelled, at the age of thirty, to qualify himself for a profession. He entered the Church, and found a friend in the Bishop of Peterborough—commencing his clerical life as a curate in the Fens, and after many changes finally settling down to the toil of London work as Rector of St. Luke's, Chelsea. The elder Kingsley was a man of culture and refinement, delighting in nature and country life, but withal devoted to the work

<sup>\*&</sup>quot;Charles Kingsley: His Letters and Memories of his Life." Edited by his Wife,—Henry S. King & Co., 1877.

VOL. XV.—SEPTEMBER, 1877. K

of a clergyman. Here is a glimpse into his manner of life as a country parson among the sailors and fishermen of Clovelly:—

"When the herring fleet put to sea, whatever the weather might be, the Rector, accompanied by his wife and boys, would start off 'down street' for the quay, to give a short parting service, at which 'men who worked' and 'women who wept' would join in singing out of the old Prayer-book version the 121st Psalm as those only can who have death and danger staring them in the face."

Charles Kingsley's mother, too, was remarkable for qualities which were inherited by her son. From her he derived "not only his love of travel, science and literature, and the romance of his nature, but his keen sense of humour and a force and originality which characterized the women of her family of a still older

generation."

Those who advocate the theory of the transmission of genius in families may certainly claim Charles Kingsley as an illustration of its truth. He was himself of their opinion. "Our talent," he says, "such as it is, is altogether hereditary." Nor was this talent, in his own case, slow in its development. His poems and sermons date from four years old. One specimen of this infant oratory is given—preserved by his mother at the request of the Bishop of Peterborough. We can only compare this sample of precocity with similar instances in the childhood of Lord Macaulay. The words were taken down by the little preacher's mother:—

#### FIRST SERMON.

### [FOUR YEARS OLD.]

"It is not right to fight. Honesty has no chance against stealing. Christ has shown us true religion. We must follow God, and not follow the Devil, for if we follow the Devil we shall go into that everlasting fire, and if we follow God we shall go to Heaven. When the tempter came to Christ in the wilderness, and told Him to make the stones into bread, He said, 'Get thee behind me, Satan.' He has given us a sign and an example how we should overcome the Devil. It is written in the Bible, that we should love our neighbour, and not covet his house, nor his ox, nor his ass, nor his wife, nor anything that is his. It is to a certainty that we cannot describe how thousands and ten thousands have been wicked; and nobody can tell how the Devil can be chained in Hell. Nor can we describe how many men and women and children have been good. And if we go to Heaven we shall find them all singing to God in the highest. And if we go to Hell, we shall find all the wicked ones gnashing and wailing their teeth, as God describes in the Bible. If humanity, honesty, and good religion fade, we can to a certainty get them back by being good again. Religion is reading good books, doing good actions, and not telling lies and speaking evil, and not calling their brother Fool and Raca. And if we rebel against God, He will, to a certainty, cast us into Hell. And one day, when a great generation of people came to Christ, in the wilderness, He said, 'yea, ye generation of vipers.'"

The tone of theology is, as Mrs. Kingsley says, "rather severe;" and the preacher lived long enough to modify his early views on the

destiny of mankind.

His school life was not specially eventful. At the age of twelve he was sent to a preparatory school at Clifton, and saw something of the Bristol Riots of 1831, carrying away a vivid impression of them which was never effaced. The question of sending him to a public school, debated for some time at home, was finally decided in the negative-much to his regret in after years. He was sent, however, to the grammar-school of Helston, in Cornwall, of which Derwent Coleridge was Head Master. There the foundations of the intellectual building were firmly laid, and at the same time the early bias of his taste in the direction of country life and out-door pursuits strengthened and confirmed. A careful student, without being a book-worm: possessed of great physical strength, yet never prominent in the sports and games of the school: full of curious information on many out-of-the-way subjects, and thus somewhat unpopular with those whom he was always unconsciously reminding of their ignorance-shy, eccentric, and living very much in a world of his own-such seems to have been the lad during those years when the cartilage of character is beginning to harden. In 1836, on his father's removal to Chelsea, he was entered as a student of King's College, London; whence, after two years, he passed on to Cambridge. He was almost at once elected to a scholarship at Magdalene College; and if he had made the attainment of academical honours the goal of his Cambridge studies, there is no doubt that he would have taken very high rank in the class-lists. But he was a fitful and irregular student, known more for his genial humour and delight in all forms of physical activity than for his devotion to the studies of the place. As the time for his final examination approached, he determined to read more closely, and for the greater part of a year he worked with a settled determination not to lose whatever advantage for starting in life could be gained from a good degree. The story of his Cambridge life gives a vivid picture of a man with an easy and careless sense of power about him. He astonished the men who knew him chiefly as a bold rider and a keen angler, by coming out in double honours-first class in classics, and senior optime in mathematics. The following amusing incident in connection with the examination is recalled by one of his contemporaries at the University:-

"On one morning but one question remained of a paper on mechanics, 'Describe a common pump.' Of the internal machinery of the pump Kingsley was unable to render a scientific account, but of the outside his vivid imagination supplied a picture which his facile pencil soon transferred to paper. Under the heading 'Describe a pump,' he drew a grand village pump in the midst of a broad green, and cpposite the porch of an ancient church. By the side of the pump stood, in all pomposity of his office, the village beadle, with uniform and baton. Around were women and children of all ages, shapes, dress, and sizes, each carrying a crock, a jug, a bucket, or some vessel large or small. These were drawn with considerable power, and the whole was lighted up with his deep vein of humour; while around the pump itself was a huge chain, padlocked, and surrounded by a notice: 'This pump locked during Divine service.' This, Kingsley sent up to the examiner as his answer to the question. I know not whether he got any marks for it; but it was so clever that the moderator of the year had it framed and hung up on the wall of his room.'

Before leaving the University, he abandoned his intention of pursuing the law as a study, and determined to enter the service of the Church. A series of letters, extending over a considerable part of his Cambridge life, gives some glimpse into the spiritual and theological difficulties which were inevitable to a man of his honesty and activity of mind. These letters were evidently written to the lady who afterwards became his wife; and it is clear enough, notwithstanding the careful repression with which the extracts are introduced, that to this correspondence mainly the gradual settling of his opinions was due. In 1842 he saw his way to accepting doctrines from which heart and intellect alike revolted in 1829. He was ordained in July, 1842, and at once commenced his clerical life as curate of Eversley, on the borders of Old Windsor Forest. All his earlier misgivings as to the truth which he was to preach, and the relations of the Church of which he had become a minister to the life of the nation, had faded away. The very doctrines which in his young days had been an offence became in later years his spiritual stronghold; and none would have resented more strongly than himself the suggestion that in any one of the many directions into which he distributed his marvellous energy he was not doing the proper work of a Christian minister. "Homo sum; humani nihil a me alienum puto," is the appropriate motto for the man and his work.

Work enough there was to be done in Eversley parish. Before the new curate's time, "The church services had been utterly neglected. It sometimes happened that when the rector had a cold or some trifling ailment, he would send the clerk to the church door at eleven, to inform the few that attended that there would be no service. In consequence the ale-houses were full on Sunday and the church empty, and it was up-hill work getting a congregation together." But up-hill work and difficulties were just the thing for Kingsley. He was nothing if he had nothing to fight against. And he began in earnest to get hold of these Hampshire clods and see what could be made of them. He describes his method of dealing with them as trying to catch them by their leading ideas, and so

drawing them on insensibly to his own leading idea. His plain speaking to them on Sunday did something to win them; his houseto-house visitation through the week did more; but his many-sided sympathy and versatility did most of all. There was no distinction of secular and sacred in his thoughts or in his life. He would read the burial service over the dead, and then start for an hour's troutfishing; returning to read the Bible to an old cripple, and then criticize the points of a horse with the huntsman, turning from him to speak to another of God's great mercy to sinners; and finding no inconsistency in this. They found, too, that he was their equal in their own work. "He could swing a flail with the threshers in the barn, turn his swathe with the mowers in the meadow, pitch hav with the havmakers in the pasture." He knew the "earth" of every fox on the moor, and the haunt of the big pike, as well as the huntsman or the poacher; and not a man in Hampshire could throw a better fly. And so it was that he won the hearts of his people, and they would do anything for him. An amusing story is given by Mrs. Kingsley, showing at once the happy simplicity of the Eversley rustics and their confidence in their minister. A pack of hounds was kept in the neighbourhood of Eversley, and the stablemen, grooms, whips, &c., on the estate came regularly to church. "When the first confirmation after his induction was given out in church, and he invited all who wished to be confirmed to come down to the rectory for weekly instruction, the stud groom, a respectable man of five and thirty, was among the first to come, bringing a message from the whips and stablemen to say that they had all been confirmed once, but if Mr. Kingsley wished it they would all be happy to come again!"

His curate life at Eversley covers the space of two years, and brings the story of his life down to the summer of 1844. The promise of a living in Dorsetshire induced him to apply for the curacy of Pimperne in that county. He went down to Pimperne to arrange about his duties there. But before the arrangements were completed the living of Eversley became vacant, and the parishioners made a strong effort to secure it for the man whom they had learned to honour and love. The effort was successful; and in June, 1844, he returned to them as rector of Eversley. Early in the same year he had married the lady who for thirty years was, with an unusual fulness of meaning, the "partner" of his life, and to whose affection

and skill we are indebted for these memorial volumes.

The four years which followed his appointment to the rectory were devoted to parish work. There was much to be done. His predecessor had ended an incumbency, marked by habitual neglect, by absconding from the place; and the young rector "had to redeem it from barbarism, but it was a gentle barbarism, for the people, though not intelligently responsive, were a kindly people, civil and grateful for notice, and as yet wholly uninjured by indiscriminate almsgiving. He was daily with them in their cottages, and

made a point of talking to the men and boys at their field work, till he was personally intimate with every soul in the parish, from the women at their wash-tubs, to the babies in the cradle, for whom he had a loving word or look; so that before the state of his health obliged him, in 1848, to take a curate, he had got the parish thoroughly in hand." To this period also belong his first publications as an author. "The Saint's Tragedy" appeared early in 1848, and "Yeast" came out towards the end of the same year as a serial in Fraser's Magazine. The former work had been commenced in prose in 1842, and gradually assumed the form of a drama. It is rather the result of his reading and research as a student at the University than an indication of the direction in which his literary life-work would ultimately be found. The drama is founded on the well-known story of Elizabeth of Hungary, daughter of Andreas II. and wife of Prince Louis of Thuringia. Her wrongs, her sufferings, and the beautiful tenderness of her character seem to have united in drawing out the sympathies of the generous and enthusiastic young poet. The infamous Conrad too was an admirable object upon whom to wreak the indignation that glowed in his heart against every form of tyranny and meanness. The work is pervaded by the bold, strong spirit which in after years rose up in indignant protest against the falseness of English social life, and the wrongs of English labouring men. It has many passages too of great tenderness and lyrical sweetness. But it is not worthy of Bunsen's extravagant eulogy, who finds in it the justification of a hope that Kingsley might continue the series of Shakespeare's historical plays.

The publication of "Yeast," in 1848, and of "Alton Locke" two years later, committed Kingsley irrevocably to the cause with which his name will always be associated. The former work deals with the wrongs and sorrows of the English agricultural labourer: the latter with those of the English artisan. It may seem an easy and a safe enough thing, now-a-days, to advocate the cause of the poor, and to take the side of labour in its struggle against capital. It needs no special courage to do this in our day. But it needed courage of no ordinary character to do it five and twenty years ago; and it is an easy thing to-day, mainly because men like Kingsley did it The effect of his burning words and scathing exposures is to be seen in the vastly improved condition of the English peasantry, and in the efforts that are made in London and the great English towns to convince English artisans that the church has a message for them-an idea of which Kingsley was the great preacher to his generation. It was all the more a courageous part, because he knew well enough how it would injure him in quarters where it was his interest to stand well. "Political Parson," "Fighting Parson," "Chartist Parson," were among the mildest of the epithets with which he was assailed. The Times set itself the task of demolishing "Alton Locke" by combined abuse and ridicule. The Guardian and other High Church organs denounced the books as heretical and immoral. The Edinburgh and the Quarterly forgot for a moment their ancient jealousies in their common hatred of the "Christian Socialist" movement. Friends and relatives anxious for his advancement in professional life entreated him to withdraw from all sympathy with the cause of the people. In reference to this he writes:—

"I will not be a liar. I will speak in season and out of season. I will not shun to declare the whole counsel of God. . . . . . All I hope is, that we shall be bold—draw the sword and throw away the scabbard. I think I have counted the cost, and I have more to lose in many ways than any one of us almost. And therefore, lest I should turn coward, I want to put myself whence there will be no retreat. That myth of old Von Trong Hagen dashing the boat in pieces by which the Nibelungen crossed the Danube is great and true." And again, "God has taught me things about the heart of fast sporting men, and about the condition of the poor, and our duty to them which I have no doubt He has taught many more, but He has not set any one else to speak about them in the way in which I am speaking. He has given me a certain artistic knack of utterance (nothing but a knack), but He has done more. He has made the 'word of the Lord like fire within my bones,' giving me

no peace till I have spoken out."

In the determination and course of action thus expressed he was sustained by those whose judgment he valued most. A characteristic letter from Carlyle, in reference to the publication of "Alton Locke," speaks of the writer as "right glad to hear of a new explosion, or salvo of red-hot shot against the Devil's dungheap." Still more important and more fruitful in result was the sympathy of the men who joined him in practical effort to raise the people. Frederick Maurice, Hughes, and J. M. Ludlow were his chief allies. A recent reviewer gives Mr. Maurice but scant measure of praise when he says that his part in the battle was to lift up his hands on the mountain. If not himself the main workman, it was he who touched the springs of action in the others. Kingsley in particular owned him as his master, and reverenced him as a pro-And Maurice certainly directed the movement during its most critical time. His house was the rendezvous for the friends during the spring of 1848, when London and all England were in terror of a Chartist Insurrection. Kingsley and his friends worked among the foremost to keep the peace on the memorable 10th of April. Handbills were posted up, written chiefly by Kingsley, in which his burning sympathy with working men was not more intensely expressed than his denunciation of their own vices and follies. His main teaching was simply that the elevation of the workmen to social and political influence must be the result of their own personal moral improvement. A few words from these "Papers for the People" will give the burden of his cry :-

"You think the Charter would make you free-would to God it

would! The Charter is not bad, if the men who use it are not bad! But will the Charter make you free? Will it free you from slavery to ten-pound bribes? Slavery to beer and gin? Slavery to every spouter who flatters your self-conceit and stirs up bitterness and headlong rage in you? That, I guess, is real slavery; to be a slave to one's own stomach, one's own pocket, one's own temper. Will the Charter cure that? Friends, you want more than Acts of Parliament can give. My only quarrel with the Charter is that it does not go far enough in reform. I want to see you free; but I do not see how what you ask for will give you what you want I think you have fallen into the mistake of fancying that legislative reform is social reform, or that men's hearts can be changed by Act of Parliament. If anyone will tell me of a country where a charter made the rogues honest, or the idle industrious, I shall alter my opinion of the Charter, but not till then. Be fit to be free, and God

Himself will set you free."

Lessons like these were addressed by Kingsley and his friends to the working men of England in every variety of way-lectures and addresses, poems and ballads, political sermons and pamphlets, and above all periodical literature. In "Politics for the People," "The Christian Socialist," the "Journal of Association," "Cheap clothes and Nasty," they advocated views which, fiercely contested at the time, have now obtained general acceptance and are already regarded as the common-places of political and social science. From 1848 to 1856 Kingsley contributed a vast number of papers under the familiar nom de plume of Parson Lot. The name was suggested to him at one of the Association meetings when on some disputed question he found himself in the minority of one, and he said, jokingly, that "he felt much as Lot must have felt in the Cities of the Plain, when he seemed as one that mocked to his sons-in-law." Those who think that Parson Lot in these papers was a mere brawling politician and clamorous shouter for "the people's rights" are utterly mistaken. He kept steadily in view his central principle that the elevation of the people is the people's own work, and they would rise only when they were fit to rise. It is very significant to find, in the very crisis of the political storm of 1848-9, the singularly beautiful and thoughtful papers on the National Gallery and the British Museum -like islands of rest in the waste of an angry sea. They show at once his own keen sympathy with every form of loveliness, and his confident belief that even the dullest heart will be touched by and will respond to any genuine appeal to its innate sense of beauty.

Meanwhile the pressure of these engagements, and the claims of the stirring questions of the day, were not allowed to engross the whole of his time. The interest of "Yeast," and "Alton Locke," notwithstanding the great care and power shown in the delineation of character, depends largely upon the social and political excitement in the midst of which they were written. They are in reality vigorous political pamphlets, dealing with the great social problems which

clamoured for solution. Their author put them forth as a contribution towards the solution of these problems, and knew well enough that their interest was but for a time. And it is a remarkable proof of Kingsley's intellectual vigour that in the very midst of his toil and thought for the redress of social wrongs he was thinking out the plan and collecting the materials for a work which was to present the most vivid picture ever drawn of the intellectual life of the ancient world. "Hypatia" was commenced as a serial in Fraser's Maga-

zine in 1851, and came out as a book in 1853. There is little doubt that in "Hypatia" Kingsley attempted a far more difficult task, and achieved a far more brilliant success, than in any of his previous works. It was indeed no easy thing to produce an adequate representation of the vigorous and many-sided life of that great city which was one of the most enduring witnesses of the genius of Alexander the Great, and where literature was destined to flourish long after his great empire had fallen into decay. eye of the great soldier foresaw something of the bright future in store for the city that should bear his name-situated as it was at the confluence of the great streams of power-the meeting-point of European vigour and oriental magnificence. The Alexandria of the fifth century had indeed lost much of the splendour of earlier days. The Ptolemies had made it the intellectual capital of the world, and filled it with magnificent buildings which could be matched only in Rome. But from the time of its occupation by the Romans it began to decline. Siege and massacre, pillage and demolition, and the rising glory of the rival city on the Golden Horn helped on downward career which brought the city of the Ptolemies, with a population of half-a-million, to the level of an insignificant town with 6,000 inhabitants. But in the time of which "Hypatia" treats, the great city had not wholly forgotten her ancient traditions or lost her proud ambition. She still aspired to intellectual pre-eminence, and attracted to her shores the talent, the learning, and the wealth of the three continents to which she almostequally belonged. And there is scarcely a phase of the multitudinous life that filled the city which is not vividly and powerfully delineated in "Hypatia." Every language and dialect from the Crimea to Cadiz might be heard in the crowded streets. Sharp and clear each figure stands out on the pictured page. We are looking, in company with a "cloud of witnesses," on the death-struggle between the paganism of the old world and Christianity.

Any careful reader of the book will acknowledge the extraordinary vividness of the characters. There is such artistic symmetry and completeness in all the main actors, that one thinks of them as persons whom he has known and seen; and the impression on the mind after reading the descriptions of scenes and places resembles the illusion produced by painting. Who can ever forget the silence of the desert, broken at sunrise by the morning hymn of the monks of Scetis; the riotous life of those huge Goths, with their long whips

and mighty swords; or the butchery of the Libyan prisoners in the theatre, followed by the pageant of Venus rising from the foam of the sea? No characters in modern literature stand out with more clearness than Orestes, the degenerate Greek Prefect-false, cowardly, sensual, terrified beyond measure by the turbulent spirit of the Christians, yet unable to resist the temptation to join in a revolt which might make him Emperor of Africa -a mere profligate sceptic in reality, while to the world he seemed perpetually oscillating between the heathen pantheon and the Christian church; or Aben-Ezra, the subtle, learned. contemptuous, unfathomable Jew, won at last to the Christian faith not by arguments and evidences, but by the exhibition of noble Christian charity and virtue; or Cyril, the scheming unscrupulous prelate, organizing his ecclesiastical cohorts with the skill and sternness of an old Roman Legate. And throughout the work the deep convictions, the broad sympathies, the large tolerance of the author are clearly seen. Believing with all his heart the messages of Christianity, he denounces with indignation the abuses which sheltered themselves under its name and the corruptions which disgraced its adherents. On the other hand, his shuddering revolt from the abominations of heathendom does not blind him to the beauty of much of its philosophical speculation, or disqualify him from interpreting aright its deeper significance. He has a keen eye for "the soul of good in things evil." Under the crust of worldliness he knows that the human heart is still beating. Even in the conceited, selfish Eudæmon, the fierce abandoned Miriam, the soft voluptuary Pelagia, his delicate analysis detects the presence of that better nature which makes the whole world kin.

Yet, with all the impetuous enthusiasm that sweeps like a torrent through the book, there is the most scrupulous accuracy in its detail. The mere amount of careful and difficult reading represented by the book is astonishing. The contents of a score of pages from some musty folio will be given in a single clear and ringing sentence. "I was especially struck," says an old pupil who was living with him when the book was written, "not only with his power of work, but with the extraordinary pains he took to be accurate in detail. We spent one whole day in searching the four folio volumes of Synesius for a fact he thought was there, and which was found there at last. The hard reading he had undergone for that book alone, would furnish an answer to some who thought him superficial."

The publication of this book secured Mr. Kingsley's place in the first rank of English writers, and gained for him the acquaintance of the most eminent men in the priesthood of letters. Not that the voices of his enemies were silenced, by any means, or suspicion disarmed. With the exception of the few clerical friends who had worked with him, such as Maurice, Hare, and Robertson, the clergy of the Church of England stood aloof from him as a suspected person.

A conspicuous illustration of this was given during his residence at Torquay. Here he spent the winter and spring of 1854, on account of his wife's health. But all pulpit doors were closed against the man who had dared to plead the cause of English labourers, and to tell the truth about the Christianity of the 5th century. The way in which he turned this enforced leisure to account is thoroughly characteristic of the man. Instead of bemoaning his lot and complaining of the injustice with which he was treated, as weaker men would have done, he simply accepted this as part of his discipline, and set to work to turn his leisure to account. He gave himself up to the study of natural history, the earliest and the most enduring of all his tastes. He almost lived on the shore and among the rocks, searching into the wonderful and beautiful things which have their home in the sea; and the results of this sea-side holiday were given to the world in one of the most charming little books of Natural History ever written-"Glaucus, or the Wonders of the Shore." The mention of this book suggests the only remark which our space will allow on Kingsley as a student of science. He studied it with profound and solemn reverence. To him a stone, a moss, a flower was in the strictest sense a revelation of God-the expression of a thought of God; and so he read the book of Nature as devoutly and reverently as he read his Bible, and rejoiced in new light upon any fact or process in Nature in the same way and for the same reasons that he rejoiced in new apprehension of the meaning of Scripture. It was the intensity of this conviction that made him all his life free from the abject terror of those who dread a contradiction in science to the word of God. He was saved from any such fear by his profound belief in the unity and the perfection of God, and the necessary unity and harmony of all that He has spoken.

But we must hurry on. The most popular and in some respects the most brilliant of all his books was published in 1855. The Crimean war was raging at the time, and his heart was full of it. He had his say to the English soldiers who fought under the walls of Sebastopol in a little tract "Brave words to brave soldiers," which was circulated by thousands among the men. The main purport of the tract was to tell the men that they were fighting on God's side, for the things that God loves and approves—the faith that gave victory to Cromwell's Ironsides, and scattered the Great Armada like chaff before the wind; and he said the same thing to the English people in "Westward Ho!" Reading that book, we seem to be living among the noble and heroic men of the great Elizabethan era -to be looking upon the picture of the very perfect Christian gentleman in Sir Richard Grenvil, upon the very beauty of holiness and virtue in Frank Leigh and his saintly mother. From its vivid narrative we learn to understand the manner of men who crippled the Spaniard abroad and crushed him at home, in the name and to the glory of the God they served. Those who know the book will not need to be reminded of its overflowing humour and marvellous descriptions and exquisite tenderness. Many a reader of "Westward Ho!" has thanked God for the book, and thanked the man who has thus brought the lessons and the light of the past to guide our steps

and renew our courage for the tasks of our own life.

And now the recognition of his genius, his learning, and his good. ness began to appear in high quarters. Learned societies elected him to their fellowship. He was made a canon of Chester and afterwards of Westminster. The Queen appointed him one of her chaplains. The University of Cambridge made him Professor of Modern History. He was chosen to be private lecturer in history to the Prince of Wales. But these and similar honours could not spoil the noble simplicity of his character. Mrs. Kingsley's volumes abound in testimonies to the value of his work, and the kind of fascination which he seemed to exercise upon men of the most opposite opinions and modes of life. Very much of his large correspondence consisted of letters of advice to those who consulted him on perplexities of faith; and all who came near him seemed to remain under the spell of his personal influence. To the proofs and illustrations of this, which are furnished by these volumes, no further reference need be made. But they may be supplemented by the following interesting "reminiscences" of Kingsley as Professor of History at Cambridge, which have been kindly furnished by a gentleman who was a student at the University during his Professorship: ---

Cape Town, August 6, 1877.

You have asked me to put upon paper a few recollections of Charles Kingsley as he was at Cambridge. Delightful as these recollections are to me, I find it hard to express them so that they may afford interest to others. One of the charms of going into residence at Cambridge in October, 1860, was the faet that Kingsley was coming up as Professor of Modern History. I remember the thrill one felt as one November evening a man announced "in Hall"-"Kingsley is come; I saw him to-day in the streets; my father knows him, and I knew him in a moment." The man whose father knew Kingsley was a man to be envied, and to be asked to one's rooms at once. I remember there was a warm discussion as to some of the Professor's supposed views, and within a few days after he had stood up in the senate-house and delivered his inaugural lecture, men who were opposed to him began to say, "Whether we agree with this or that, we like Kingsley." And so it was; every creature that came near to him began to love him ; - one could so thoroughly trust him ; - he rang so thoroughly true; one felt instinctively there was not the slightest bit of affectation about the man -- inside and outside moved together.

Then he began to lecture and we undergraduates to crowd his room. We crowded him out of room after room, till he had to have the largest of all the Schools, and we crowded that—crammed it. For undergraduates are an affectionate race, and every one of us who wished to live as a man ought to live, felt that the Professor of Modern History was a friend indeed. Tutors and fellows and lecturers eame too, and sat on the same benehes with undergraduates. And often and often as he told a story of heroism, of evil conquered by good, or uttered one of his noble sayings that rang through

us like trumpet-calls, loud and sudden cheers would break out irresistibly -spontaneously; and wild young fellows' eyes would be full of manly, noble tears. And again and again, as the audience dispersed, a hearer has said "Kingsley is right-I'm wrong-my life is a cowardly life-I'll turn over a new leaf, so help me God." And many a lad did it too. Kingsley preached without seeming to do so. History was his text. The men and women of History were the words that built up his sermon. He loved men and women, you felt that. He never sneered at their faults. He had a deep, sad pity for them: he would even laugh a little, good humouredly, at the comical side of some of them, for he was full of humour: but anything like a sneer one never heard. Hence, partly, his great power. Again, he had such a warm, passionate admiration for fine deeds. His eye used to glisten, his voice in its remarkable sea-like modulations to swell like an organ as he recounted something great, till his audience listened-quiet, spell-bound, fixed, till the climax came, and then rushed into a cheer before they were well aware of it. He was so modest and humble he could not bear our cheers. He would beckon for quiet; and then in a broken voice and with dreadful stammering say "Gentlemen, you must not do it. I cannot lecture to you if you do." But it was no good -we did not mean to cheer-we could not help it. Had Kingsley had to lecture upon broom-handles, he would have done more good than many men would do with the most "suggestive themes." His own noble, gallant, God-fearing, loving soul shone through everything, and we felt it was good to be with him. He made us read too. He taught us how to read. History was the story of God's men and women in the past, for the men and women living now. He lighted it up and showed us its true unity. But I must end with him in his lecture-room. I should like to have had time to tell about him at our sports, but I have not. Men all over the world have thanked God for the lessons of manliness, charity, and godliness they learned in the room of the Professor of Modern History. Amongst other things they learned this great lesson—and it is a good one -to love heartily and deeply (so that even now after fifteen years the recollection of him moves one to tears)—to love a great and good man.

Our space is too limited to allow of more than a few closing sentences. Gladly would we tell of the sunny cheerfulness of the home at Eversley: of the drawing class at Bideford, and the botany class at Chester: of lectures to ladies on sanitary science, and letters to fast sporting men on betting and horse-racing, and charming books to delight and instruct little children: of voyages to the West Indies and America, and new volumes of travels, fiction and poetry: of many books of sermons-straight from the heart of a man who believed utterly in his own message of the "good news of God," and the "water of life:" and of those glorious fishing expeditions with his good friend "Tummas" Hughes, when the riotous animal spirits are let loose, and the air is filled with the joyous shouts of the holiday-makers - and we hear the loud applause amidst which that four-pound trout is grassed, and the stamp of vexation as the twelvepound salmon breaks away with sixty yards of good line trailing behind him. All these and a thousand other things are to be found in these delightful volumes.

Of Kingsley's special religious opinions and beliefs there is no occasion to speak in these pages. They combined great breadth and freedom in some respects with a rigid conservatism in others. The faith in which he lived, and for which he often fought, was the faith that held him in its embrace to the end. One of his favourite characters in "Hypatia" says: "I don't want to possess a faith; I want a faith which will possess me." This sentence describes accurately the specific difference between his early aspirations and his later possession. He gave up his first search for beliefs that satisfy the intellect, and found rest in a faith that "possessed" his soul. As life advanced, the stream—turbid and swollen at the first—ran itself clear and calm. He did not expect, he did not wish for, a long life. Over and over again his journals and letters give expression to the desire of his heart to have done with this life, and to learn the secret which death hides from us. This intense desire was in part the result of his passionate thirst for knowledge, and in part the expression of his unbounded faith in the love of God and the destinies of humanity. He yearned "to know what God hath prepared for those that love Him." The end came in the early part of 1875. A severe cold caught on his American trip left a weakness which alarmed his friends and prepared them for the result. His last sermon was preached in the Abbey on the 29th of November, 1974: and then he went home to die. The tale of these last days is told with much tenderness and pathos by Mrs. Kingsley. . . . . . Two months later, loving hands laid in the grave, among the fir-trees in Eversley Churchyard, the mortal remains which for five-and-fifty years had been the living temple of one of the truest and strongest, the purest and most beautiful of human souls.

## De Profundis.

The dying sun, with mellow ray,
Illum'd the deep'ning gloom
Of carved apse and storied bay
And costly, sculptur'd tomb.
On aisle and chapel, choir and shrine,
The morient beam delay'd:
Its ling'ring beauty, half divine,
Upon the altar stray'd.

Before that altar knelt a man Absorb'd in earnest pray'r, His pallid face, with suff'ring wan, Was overcast with care. Fast, fast the eager tear-drops roll'd Adown his bronzèd cheek, His heaving bosom's sobs foretold His very heart would break.

His harness, all of metal tried,
Was cunningly inlaid
With jewels rare, and by his side,
His golden helm display'd.
A silken scarf, of gorgeous sheen,
Upon his breast he wore,
And rev'rently, his hands atween,
A crucifix he bore.

"My heart is black with sin," he cried,
"My soul can find no rest;
Extend Thine arms of mercy wide
And take me to Thy breast.
Canst Thou deny one soul relief
For whom Thy blood was shed?
Did'st Thou not save the sorrowing thief
E'en as death bow'd Thy head?"

Athwart the altar pass'd a glow
From out the western heav'n—
The messenger of Peace, to show
His guilt was all forgiv'n.
Uprais'd in hope, his glazing eye
With rapture's light was fir'd;
He sank before the Altar High,
And in a smile expir'd.

For vespers rang the kloster bell;
The abbot with his train,
Each from his solitary cell,
Came slowly in amain;
The rising moonbeams softly broke
Upon that prostrate head;
The solemn organ sweetly woke
Its requiem for the dead!

### Letters on Banking.

II. On the Nature of a Banker's Obligations in respect of Capital.

Before taking up the subject of notes, as they affect the capital we were left to deal with in the last chapter, or entering into any question connected with the practical details of banking, it may help us to a fuller understanding of these subjects to follow out the principles upon which the English banks are constituted, so as to render their functions effective. It will not, therefore, be out of place to devote this chapter to a consideration of some features in the nature

of a banker's obligations in respect of capital.

In the last chapter, on the functions of a bank, we followed the principles of the English banking system, in fulfilling those functions, up to a point where the banker became possessed of an assumed capital of f, 12,000,000. This sum constituted the total liabilities of the banker, and he might at any time be called upon to repay the whole amount on demand. We also found that the banker obtained the £12,000,000 solely on his own credit, which rested merely on his presumed ability to repay it. He was at liberty, in the course of his business, to invest £8,000,000 of the amount in floating the unrecognizable credit of the trader, which was founded on material wealth. But, suppose that in some instances this wealth failed; as, for example, that on which the bill of B. was formed may not have realized f, 100 when brought to the market, and by a series of adverse circumstances neither B. nor A. was able to redeem the bill in gold. The banker would by this misadventure be unable to pay the individual whom we assumed to have deposited his salary, the £1,500. Again, on the other hand, if the venture on the bill had proved successful, the depositor of £1,500 would have been fairly entitled to receive a proportionable share of the profit accruing from the transaction. The only security which the depositor has, in such circumstances, for the prompt repayment of his deposit, lies in the accuracy of the banker's judgment on the trustworthiness of A. and B.; and the banker is left in a position where the only capital he can command for purposes of trade arises out of his own liabilities to depositors. The banker in dealing with the £12,000,000 is, therefore, acting altogether on a principle of mutual benefit between one class of persons possessed of capital and another class possessed of wealth without capital.

Under circumstances equally advantageous to the banker, the principle of mutual benefit would perhaps form the most equitable system of banking that could be devised; but, owing to the uncertainty of credit, a serious contingency might arise from the present position of the depositor's capital in the hands of the banker, in the event of the £8,000,000 being fully absorbed in obligations arising

out of commercial credit, and falling due at periods varying from one month and upwards, and the banker meeting with unexpected demands from depositors to the extent of £5,000,000. These demands, it is true, would be £1,000,000 in excess of the maximum amount of the ordinary necessities of a banker, and would only arise from some disturbance of the normal condition of the monetary system, causing a want of confidence in the banker's credit. Still, such circumstances might happen, and to meet the case suggested it would be necessary for the banker to borrow £1,000,000 from bill brokers on the security of the obligations created on the £8,000,000, and after paying the demand of £5,000,000, he would be left without any balance to meet the daily demands of the individual depositors of the remaining £7,000,000.

This is an evil to which banks of every description, holding large sums of money at call, are liable to be exposed, and if the moneyfabric of England ever happened to be seriously shaken by any wide-spread want of confidence, it is not unlikely that the system of deposit-banking would undergo a change. Some banks, sensible of the danger of accumulating vast amounts repayable on demand, have already adopted the expedient of receiving deposits at call only under certain restrictions; but, in the event of any extensive collapse of the present system, through financial panic, or otherwise, it is not improbable that every bank would refuse to accept any considerable

deposit, except for a fixed time.

The liabilities of the banks in Great Britain at the present day are not under five hundred million pounds, and the ready-money or reserve which they hold to meet those liabilities is only about five per cent. of their total amount; in other words, the maximum amount of ready cash reserved by English bankers to meet their liabilities in the ordinary condition of trade probably at no time exceeds the proportion of one-twentieth part of the amount they may be called upon to pay. It is surprising that a column so slender

can support so vast a superstructure.

This is, doubtless, the weakest point in the whole system of banking, and the plan which bankers have invariably adopted in order to strengthen it, and render the system less vulnerable, has been to introduce capital into the bank, of a more permanent nature, and more fully under their own control, than the deposit-money of which we have been speaking. This permanent capital is in the strictest sense the banker's capital, and whatever additional wealth or capital, except that arising from the profits of business, may come into possession of the bankers in the pursuit of banking business is termed bank liabilities. The capital of the banker also constitutes fresh security to the depositor for repayment of his deposit.

In England every banker is subjected by the law to certain restrictions in dealing with his capital. If, for instance, it had been determined to work a bank on the principle of mutual benefit which we have indicated, the banker would have been legally bound to

Vol. XV.

adhere, in practice, to that principle only, and rendered powerless to adopt any other, unless relieved from the obligation by competent

authority.

The English law does not recognize the collective rights of individuals, under the name of any public institution, unless that institution has been sanctioned by Act of Parliament; or as it may be, in some very rare instance, unless the institution has obtained prescriptive rights, by having, in the eye of the law, followed the practice of its particular business from time immemorial. A bank attempting to carry on business in Great Britain, unless registered under the provisions of some Act of Parliament, would, in all matters of business, be subject to practical outlawry; that is, it would be rendered incapable of suing in any court of justice, and likewise

subjected to certain legal penalties.

The individuals, therefore, who contribute the more permanent capital to which we have been referring are incorporated into a single acting body, which is recognized by the law and established under certain restrictions, by Act of Parliament, as a banking company. The capital may either be the private capital of an individual acting by himself, or the incorporated capital of a number of individuals acting in co-partnership. If the number of individuals should be less than ten, they would be designated private bankers, and if more than ten they would be formed into a joint-stock company. A private bank or a joint-stock bank may be incorporated under an Act of Parliament, either with or without limited liability. The shareholders subscribing capital in a limited banking company are only liable for the debts of the bank to the extent of the capital which they subscribe, except where such bank has an issue of notes, when the partners become liable to the extent of the notes issued over and above the subscribed capital. In an unlimited bank, however, each subscriber becomes liable for the debts of the company to the extent of his private fortune.

Looking at these systems respectively in a general way, and in relation to the selection of a banker, a joint-stock bank, without limited liability, appears to afford the best security for repayment of the deposits, inasmuch as the resources of thirty individuals would in all probability be less easily exhausted than the resources of ten; and thus the security of a joint-stock bank would have a firmer basis than that of a private bank. We shall, therefore, assume that the permanent capital, to which we have referred, is introduced into a joint-stock bank, without limited liability, and briefly indicate the manner in which it may be accomplished, by removing the capital with which we started from the basis of the mutual-benefit system

to the new position.

Of the £12,000,000 of deposits in our last letter, £4,000,000 were reserved to meet the necessary demands of the bank's customers. This sum, as was stated, might vary in amount according to the necessities of the bank, as these became manifested in the details of

The proportion of one-third of capital against the management. total liabilities of a bank, although approved of by one of the ablest of English bankers, appears, indeed, to be a maximum amount, as no banker in Great Britain holds capital bearing such a large proportion to his liabilities. In "Gilbart's Treatise on Banking" (a book which every practical banker ought to be acquainted with) we there find it observed that, "although the proportion which the capital of a bank should bear to its liabilities may vary with different banks, perhaps we should not go far astray in saying that it should never be less than one-third of its liabilities. I would exclude, however, from this comparison all liabilities except those arising from notes and deposits. If the notes and deposits together amount to more than three times the amount of the paid-up capital, the bank should call up more capital."

The general mode of procedure in organizing a bank to commence business is to begin by allotting a specified number of shares at a nominal value,—it may be of the value of f 100 each; but as there are not yet any liabilities, and as the outlet for capital is still limited, one-twentieth part of the share-value may be sufficient for the business purposes of the new bank. The banker, therefore, calls up 5,5 on every share from the individuals to whom the shares have been allotted. The capital thus obtained is, in the first place, advanced by the banker to individuals for the circulation of wealth; but, although these advances may be made on obligations of two or three months' currency, the money speedily returns into the banker's hands, and is again advanced in the same way. The capital may undergo this process several times, and meanwhile the liabilities of the bank are being increased by the lodgment of money on deposit. So long as the paid-up capital bears the proportion of one-third of the liabilities, it will not be necessary for the bank to have more capital; but when the liabilities have increased to more than three times the amount of capital, it will be necessary for the banker to call up more.

In dealing with the capital which we are about to introduce into a joint-stock bank, it will be as well to adhere to the prudent principle laid down by Mr. Gilbart, and afterwards ascertain the reason why this principle is not observed in the ordinary practice of existing banks. Let us suppose, then, that the £4,000,000 of reserved capital is to be consolidated into the permanent capital of a bank. This object might be accomplished by dividing the amount into 40,000 registered shares of £100 each, and these shares, at their nominal value, might become the property of 5,000 of the individual depositors of the capital. These individuals would then be registered under an Act of Parliament as shareholders of the bank, and the bank, whatever name it assumed, would become an incorporated body, recognizable by the law in the person of any of its authorized officials.

It ought, however, to be observed that in forming a banking com-

pany the law does not require that there should be shares, nor even, where they do exist that they should be of any particular value; if he legal requirements are satisfied in other respects, the individuals alluded to above might "form an incorporated company with or

without shares, and with or without limited liability."

The position of the individuals who deposited the £4,000,000 has now been changed from that of simple depositors, to shareholders of the bank. The owner of one share has become equally liable for the debts of the bank, with the owner of ten shares, and the liability has been spread over 5,000 individuals to the extent of their private fortunes.

It is an essential element in the functions of credit, and a principle interwoven in the economy of banking, that the better security you get for your money, you will receive the less interest for the use of it; or to put the matter in another form, you would exact a smaller remuneration from the man whose ability to repay you was beyond any doubt, than from one whose ability you considered doubtful. Accordingly, the shareholders are entitled to receive a higher remuneration for their money than the ordinary depositors, as the former, by assuming all the responsibility of the capital of the latter, and being bound to repay it, have practically become the bankers. The shareholders are therefore entitled to receive the profits of the bank.

The capital we started with has now been changed from one system into another; and although the principle guiding the management of it has been altered, it still remains in the banker's hands, in the very same position in which we left it in the last chapter. It leaves the banker with £4,000,000 of the £12,000,000 to meet the daily demands which may be made upon the bank. But the character of the \$\int\_{4,000,000}\$ has been changed from an ordinary deposit, payable on demand, to that of a fixed capital less easily removed. The £4,000,000 have now practically become the basis of security for repayment of the £8,000,000, and this sum is, according to the observations of Mr. Gilbart, a sufficient basis of security for liabilities on the part of the banker, in notes and deposits to the extent of £,12,000,000. The introduction of this permanent capital into the bank renders its obligations more reliable. The banker's credit is also more firmly established by the capital, and he obtains with greater facility the money of the capitalist, and is thereby placed in a more favourable position for carrying out the functions of the bank; in short, his power to borrow has been increased, and his obligations have become better adapted to take the place of the ordinary

But it has been asserted that, in ordinary practice, the banker's capital never reaches the proportion of one-third of his liabilities. It is extremely difficult, in all cases, to ascertain the exact position of bankers' capital in relation to these liabilities, as it is not the custom of every bank to publish detailed statements of its financial position.

From a selection of statements published by banks having a note issue, and also of non-issuing banks, it appears that the subscribed capital held by the former does not exceed one-seventh part of their liabilities, while in the latter—the non-issuing banks—the proportion is much less. It may be mentioned that the Scotch banks, which are perhaps the most useful and perfect in detail of any, are included in the average of banks of issue. The reason of thus keeping the capital so far below what has been deemed a safe standard amount is very obvious. It arises from an endeavour to pay large dividends to shareholders, and thereby increase public confidence in the bank. It is much easier for a banker to pay a large dividend to the shareholders of his bank, from the ordinary business profits, on a small capital than on a large. Take, for example, two bankers with equal facilities for the employment of capital, the one having a subscribed capital of £300,000, and the other of £900,000, and let the liabilities of the former be £600,000 of deposit money, which, be it observed, makes the gross amount of capital, for business purposes, equal in both banks.

Ist Bank Capital £ 300,000 Liabilities 600,000 2nd Bank

Capital £900,000

£900,000

Assuming the rate of dividend to be always higher than the uniform bank-rate of interest, the banker having a capital of £900,000 has to pay dividend at the higher rate on £600,000, on which the banker with £300,000 is only paying the bank-rate of interest to depositors; and in the event of the liability of £600,000 being made up of a note circulation, the difference would be even greater, as the cost of the £600,000 would not amount to any more than the expense of circulating the notes. It is evident, therefore, that the banker with the capital of £300,000 would be able to pay his shareholders more than twice as much dividend on their shares as the one having a capital of £900,000.

The principle by which bankers are thus guided in keeping down the amount of their capital applies, of course, to the payment of small as well as of large dividends; and if the dividend is always paid from the business profits of the bank, the rate of dividend becomes, therefore, the pulse by which the health of the whole system may be ascertained. If the rate of dividend is out of all proportion in excess of the commercial value of money, it may be safely concluded that the capital of the bank is much too small for the amount of its liabilities; or, if the rate of dividend should be much below the market value of money, without any apparent cause, it must arise from want of prudence, or some other fault in the management.

JOHN K. GUTHRIE.

### On One Betrothed

#### READING A LETTER FROM HER LOVER.

A fair yet fickle morn on Southern strand—
The fleecy cloudlets flit across the sky—
Their flickering shades o'er sunlit surges fly—
White paper fluttering in a whiter hand.

A hat thrown careless over golden tresses; A pearl-grey dress like early mountain mist. She stands like maiden at a lover's tryst; And to her bosom the dear missive presses.

She reads the precious lines with varying hue,
Now pink, now pale. Now dim, now bright her eye.
The last page turned she heaves a happy sigh
As though it all were too glad to be true.

Life's fitful, fluttering breeze,—fair flickering day,
Love's fluttering heart,—faint flickering fading blush,
Oh! Hope new-born! ah! early sunbeams flush!
Can fear or cloud obscure your gilding way?

The sea is glad; o'er leaping billows hover
The snowy sea-gulls, through the azure winging;—
The welkin with his wailing ever ringing,
Wheels round lone distant hills the plaintive plover.

Epitome, exponent of their mood

The glance and glimmer in her form and air,
The shade and shimmer in her sun-bright hair,
As though the scene personified, she stood.

Most like the grey-eyed goddess fair of Hellas,
Inspirer of wise deeds and courage proud
"Queen of the air," and light, and dappled cloud,
Of tender tints and shades—Athené Pallas.

I pray, as I would wish a happy life;
That as herself her future may be fair;
Faint shades the deepest chequerings of care
In store for her and him who makes her wife.

VIATOR.

# The May we Live.

### By Wm. H. Ross, M.D.

THE story of our lives is a very old story, but it has the merit of being true, if it is not very new. Thanks to the industry of physiologists, the tissues of the human body have almost been converted into transparent structures; and we are now in possession of many facts which serve to illustrate the subtle processes of life, and give us an admirable key to the different modes in which we move, and live, and have our being in health and disease. The mysteries of digestion, secretion, absorption, nutrition, and assimilation of food are no longer hidden from us; but, owing to a series of happy accidents, have been thoroughly studied and investigated by competent inquirers. It may be worth while to try and see whether it is not a matter of sufficient interest to the general reader to put him in possession of some of the more prominent and salient features of our anatomy and physiology; and to make use of plain and precise language in the conveyance of structural truths.

At first sight nothing can appear more dissimilar than a plant and an animal; and yet the more you study their habits and behaviour under similar conditions, the more you will be impressed with the mutual relation and dependence on each other which pervades all organic matter. In both the animal and vegetable kingdoms, growth, nutrition, and development are derived from external agencies. In both there is a need for water, for salts, for respiration, evaporation, and circulation: In both, life alone is possible by due maintenance of nutrient fluid, and free access to atmospheric air. In both the digestive radicles are the true sources of reparative energy in the sap

and blood.

Thus the plant has its lungs in its leaves; its skin in the bark; its solid framework and digestive canal in woody fibre and appropriate tubes; and finally it stores up carbon and silicon, where man, as the highest type of animal organism, would deposit lime, and a few

phosphates or sulphates in his ashes.

The chief difference is in the power of movement and volition. In this we have the advantage over plants, which are rooted to the soil in which they grow, and have no nervous control over their organization. To say that a plant breathes, and lives, and drinks, and repairs its tissues out of its own mechanism is to recognize the fact that the laws of creation apply to all living bodies, and are not specially confined to the benefit and profit of man alone. They are evidently made for a higher purpose than their own growth and reproduction; and it is by their selective agency that we live upon the minerals contained in the soil, and consume the grain, and fruit,

and pulp in which these have been incorporated by the chemistry of plants. Thus we give and take from each other continually; and life would not be possible to either of us, if there were no media of exchange between the being that moves about in search of its food, and the humble cereal or grass that sucks up the elements of growth and repair, from the fluids and chemical compounds peculiar to soils. When life is no longer possible, and decay and death set in, both plants and animals revert to the earth, there to decompose and enter into new combinations. But what is death to one, is renewed life to the other; and just as leaves are turned into mould, so animal bodies after death are resolved again into hydrogen and carbon, oxygen and nitrogen; and in the form of carbonic acid, ammonia, water and salts, commence a new career in the vegetable world.

In treating of Life, it is necessary to acknowledge that all living structures are subject to constant decay; and the act of living consists, not, as once supposed, in the power of preventing this never ceasing decay, but rather in making up for the loss attendant on it, by never ceasing repair. Thus a man's body is not composed of exactly the same particles, day after day, although to all intents, he remains the same individual. Almost every part is changed by degrees, but the change is so gradual, and the removal of that which is lost so exact, that no difference may be noted except at long

intervals of time.

The modern doctrine of a distinct correlation between the physical forces, and the mutual convertibility of heat, light, electricity, and others, makes it clear, that by the term vital force modern philosophers, of the stamp of Tyndall and Huxley, deny that life can ever be said to be independent of structure and organization; anymore than you can attribute the phenomena of heat and flame to the carbon from out of which they are seen to proceed, during combustion and oxidation. In reality they are derived from the sun, which, as the source of all true vital activity, enables plants under the agency of heat and light to absorb carbonic acid gas from the atmosphere, and maintain the balance of power between respirable and irrespirable gases. Just in the same way-animal magnetism and nervous power are seen to proceed from the brain and its prolongations, and make themselves manifest in a series of motor and sensory actions, along the tract of spinal nerves and the plexuses of the ganglionic or sympathetic system; but in all probability the electric rapidity of our thoughts, and the faculties of feeling, comparison, memory, and volition which we attribute to our brains, do not really reside in nervous pulp, but emanate in the first instance from the rays of solar light and heat which impinge in their long journey from the sun upon the retina of the eye, and get a temporary lodging in the cells of the cerebrum, and cerebellum and spinal cord. In a word the brain is always absorbing its experiences of things from without, through agency of nerves of special sense, like the optic, olfactory, gustatory and auditory nerves; and so sight, smell, taste, and hearing are acts of the brain, and not acts of the eye, the nose, the tongue, or the ear. If this were not so, the growth of mind and intellect in all children would be equal, whether they were born deaf and mute, and blind, or in full possession of all their faculties; and yet it is a matter of common observation that natural ability and acquired talent only represent the difference between a trained and an untrained intellect in the power of observing and recording. Having absorbed this so-called mental heat and light from without, the nervous centres are enabled to return them again in the form of muscular movement and rational ideas, in speech, in comparison, in nervous control, and the display of moral and emotional life under the influence of

memory and external experiences.

Apart from the distribution of nerves, which is confined to animal organisms, the vital properties of nervous force in the human brain are full of the deepest interest; and invite us to reflect upon the physical basis of mind, as the root of the intellect and the affections. We admit that our will and our muscular actions are the outcome of individual independence. Shall we deny these properties to the brains of domestic and other animals who follow their instincts? The elephant who is wild is not so intelligent and docile to our eyes as the tamed elephant who has been taught to draw loads, and apply his sagacity in our service; but can anybody doubt that if their skulls were opened, very little difference, if any, would be found, in the two brains? On the one side we have ungovernable rage, wild fury, fierce passions, and waste of nervous power; on the other we have good temper, obedience, and a certain amount of manifest reasoning power, as far removed from servile imitation of man, as a man is from a monkey. When we examine horses, dogs, and other domestic creatures, and compare the performances of their brains with the performances that distinguish the habits of their uneducated brethren, we are driven to the conclusion that education has evolved a higher or subtler form of power from the creatures who associate with man than ever they could have originated for themselves had they been left to their natural habits; and yet anatomically their brains are equal. In truth the brain cannot originate anything from itself. If you stimulate the spinal cord with an electric shock, you can galvanize for a time all the muscles receiving nervous filaments from the spinal nerves, and cause them to jerk and jump and powerfully to contract. But you cannot cause the muscles so treated to act as they would act under the domination of a healthy brain. The power and accuracy of movement which we daily practise are not at the disposal of a battery; and the brain will not yield its knowledge up to an irresponsible agent, even though it be deprived of all its special senses, and is powerless to resist. In the case of an idiot, you cannot give him any substitute for a brain. He is deficient in nervous force, and shows it in his shambling gait, his rolling eyes, his shuffling speech, his incoherence of idea and movement. In the case of a lunatic, you are baffled by disease; and yet under the influence of passion he can exhibit ten times the muscular strength which would be proper to his physical organization in health. In all these cases the nerve cells of the brain elaborate will, thought, and activity of function out of the material supplied to them from without, as well as from within.

As Professor Tyndall has clearly put it, there can be no spontaneous creation of light by the healthy eye. To excite vision the retina must be affected by something coming from without: and he illus-

trates his proposition thus:

"Dip your finger into a basin of water, and cause it to quiver rapidly to and fro. From the point of disturbance issue small ripples, which are carried forward by the water and which finally strike the basin. Here in the vibrating finger you have a source of agitation, in the water you have a vehicle through which the finger's motion is transmitted; and you have finally the side of the basin which receives the shock of the little waves. In like manner, according to the wave theory of light, you have a source of agitation in the vibrating atoms, or smallest particles of the luminous body. You have a vehicle of transmission in a substance which is supposed to fill all space, and to be diffused through the humours of the eye: and finally you have the retina which receives the successive shocks of the waves. These shocks are supposed to produce the sensation of light.

"But besides those which produce light, the sun sends forth

incessantly a multitude of waves which produce no light.

"A comon sunbeam contains waves of all kinds; but it is possible to *sift* or *filter* the beam so as to intercept all its light, and to allow its obscure heat to pass unimpeded. By suitable lenses the light waves may be concentrated, and sent into water without sensibly warming it. Let the light waves now be withdrawn and the larger heat-waves concentrated in the same manner, and they may be caused

to boil the water almost instantaneously."

As we have found no difficulty in conceiving that solar light and solar heat may exist side by side in the rays of the sun, and be filtrated apart by suitable media, so as sensibly to enlighten our darkness, or raise the temperature of objects exposed to their unimpeded action, -so we may theoretically assume that all waves of thought are set in motion by causes coming from without, and not from intrinsic action of the brain-substance in the first instance. If the light and heat of the sun were always issuing from it, and never returning to it again in the form of heat and light, or some other allied form, by the combustion of carbon, or the evolution of electricity, it would be quite conceivable that in a definite cycle of time, this great solar reservoir of light and heat would itself be exhausted. And so, too, the same may be predicated of our mental suns-that if their scintillations never recorded their gradual or electric return to the centres from which they issued, by the agency of fresh sensations and combinations of nervous force following on the circuit of the thought, in time they, too, would undoubtedly be exhausted. Thus the play of

thought and the exercise of our limbs, which we enjoy in civilized life, have much to do in keeping our brains and bodies in health; and if we do not wish to stagnate in our beds, or be blighted by mental paralysis, it is the bounden duty of all, not to contract the circle of our sympathies by apathy and neglect of mental gifts, but to give to education the most honourable seat in the councils of philantrophists and lovers of their species. We owe it in fact to ourselves that no man should be allowed to remain in ignorance of the possibilities of his condition in life. To live better than his progenitor is a worthy aim for all: and to live better it is needful that we cultivate all our mental powers, whatever may be our social The filthy unkempt Arab of the streets is made in the same mould as a Socrates or a Plato: his organs and framework are precisely identical with the wisest in the land; and the outcome of all his forces are vice, misery, and destitution now, where it would be comparatively easy to make him conscious of shame and wrong-doing. To treat him as a brute is to crystallise his brutal instincts. To force his eyes open, and make his mind drink in knowledge and better experiences, are to dissolve his fixed bad habits, and lay the foundation of moral principle. For the tap root of all social wrong and degradation is our selfish disregard of our own duties to others who are either above or below us, and need our help.

In our frames, however, we are all equal, and the beggar and prince stand anatomically on the same footing; and are indebted for

life to the same physiological processes.

And, first, of movement. To move our limbs from place to place, it is necessary that we should employ an elastic contractile material like muscle, wherewith to carry our bodies, and to convey food and drink to our mouths; and as the idea of moving the object presupposes a point of support, it is necessary that a bony framework should exist for the purpose of yielding the required leverage. If we cut a very thin slice off some fresh "biltong" and place it under a microscope, it will be readily seen that flesh is made up of bundles of delicate threads or fibres arranged in a variety of ways. Each fibre, however, possesses the property of contracting under galvanism; and this contractility takes place in life, in an instant, under the operation of nervous influence, so that a muscle stiffens or relaxes according to the necessity of the moment. Thus to deliver a blow with the fist—each muscle employed has to shorten and thicken itself in the arm, and the force of the recoil is the measure of the nervous force employed to stiffen the fibres. That the fibres do not stiffen by any property of their own is seen clearly in cases of local injury to a nerve, where paralysis is induced in all the parts supplied by that nerve, thereby reducing the temperature, nutrition, and size of the parts involved. Under the stumulus of rage or intense excitement a feeble lunatic is capable of lifting enormous weights and dealing most desperate blows; but fortunately for his keepers-his nervous energies are soon exhausted and he rapidly degenerates into a limp

and inert mass, after his mad fit is over. If fibres were like bands of India-rubber, they would resist stretching and recoil on the stretcher, but on the contrary they shorten and thicken under nervous or reflex stimuli, and in their state of tension draw an object towards them or repel them with equal vigour. Thus in the action of the heart, the spiral muscular fibres of which that hollow organ is made up, are wound round and round the chambers, and by rythmic contraction and relaxation they act upon the heart, as our fingers do on the walls of an India-rubber syringe, when we try to pump water from one vessel into another. These muscular fibres are arranged all over the body, and play a very important part in the propulsion of food and blood, and in giving elasticity and contractility to the nutrient blood vessels of the body. For this purpose they are woven into our being, and are admirably adapted to accelerate speed and motion, and carry out the instructions of our will.

When, however, you come to look at them a little closer, you will find that besides a complete investment of nervous filaments from the brain and spinal cord, all muscular fibres have a peculiarly intricate system of blood-vessels spread over and around them, and are joined to bones, for the purpose of moving them, by tough, tenacious, and glistening threads—which are readily recognized as tendons. These muscles are therefore kept in fair working order by means of blood and nerve, and owe their rapid reproduction to "cell formation," and the free supplies of oxygen and liquor of the blood

brought to them by the arteries.

And just as it is with muscles, which we can see, so is it with other organs and tissues, which are too minute—even for microscopic power to investigate. They are all dependent for life, and vigour, and rapid reproduction by nucleated cells, on the quantity and quality of the blood supplied to them; for the main object of daily life is to derive something from the outer world, and return it to the earth and air in a different form, and the sum of all these forces is

contained in the circulation of the blood.

We may easily satisfy ourselves how full our bodies are of blood, and how it pervades the structures everywhere. You have only to prick your finger, and blood will exude; and if you open a large vein, or divide the carotid artery of an animal, you will at once see the difference between the two streams. The one will rush out in a purplish tide from the vein; while from the artery there will issue a strong jet of bright scarlet fluid in a succession of jerks. And if nobody interfere—a man may bleed away till he has lost between ten and twelve pounds of blood, and drained his body of every drop. The force of the jet would be equal to about ten inches in a second, and is caused by the action of the heart; but no sooner is blood out of the body than it begins to behave in a peculiar way. If caught in a vessel and stirred round and round by a bundle of twigs, it separates into fibrine—a sticky, stringy mass,—and abstains from clotting; but if left undisturbed, it soon settles down into a lump of jelly,

which after a time gives out a straw-coloured juice called the serum, and in this the clot soon floats. This serum is the product of the liquor of the blood, out of which it is produced—at the moment of coagulation by the formation of fibrine. The clot now consists of little red bodies called "corpuscles," meshed in fibrine; and if you wash the clot, you can get rid of the colour, and retain the fibrine, which looks like uncooked marrow, yellow and gelatinous.

In the living body, however, blood circulates through the vessels in the form of plasma or "liquor sanguinis," and if you watch the transparent web of a frog's foot you will see that in frog's blood this liquor is full of delicate little discs, and these are being jostled and hurried along, like bits of cork in a granite gutter after a shower, under rythmic pressure, and the vis-a-tergo of the heart's pumping action. In fact the arteries go on subdividing till they are so small and minute, that they are not quite so wide as the three-thousandth part of an inch, when they change their structure somewhat, and become converted into capillary tubes, in which the corpuscles can only pass through one at a time; and gradually they enlarge again and form the radicles of veins, which go on increasing in calibre, till they make up the innominate vein. The arteries may be compared to the railway system of bringing passengers to stations, and then forcing them to get out, and pay toll as they pass through; because this migration of cells through the walls of capillaries is for the purpose of immediately bringing the contents of the cells in contact with the intermediary tissues; just as lymph corpuscles travel out from the walls of the lymphatic vessels after a full meal into the direct channels of the circulation.

When, however, a drop of blood is placed in the field of a microscope, it soon becomes evident that there are two kinds of blood-cells -the larger being round, white, granular, and full of points, about the size of one two-thousand-five-hundredth part of an inch; the smaller being coin-shaped, oval, or rounded and without nuclei (or inner disks enclosed in their enveloping membrane), and nearly as large as one three-thousandth part of an inch. Viewed singly the red corpuscles are slightly concave, but flatten or bulge when swollen by the addition of fluid. They elongate under pressure; and are in short exquisitely delicate little bladders, and so numerous in the blood that about ten millions of them could be packed in a square inch. Having no nuclei they cannot go on reproducing themselves; but their office seems to be to convey minute bubbles of oxygen, and to imbibe the liquor in which they float, till they reach the capillary or intermediary mesh of tubes arranged between arteries and veins, and there part with their contents. The return loads are made up of carbonic acid and the products of decay in the tissues; and the exchange of those gaseous solutions is effected by combustion and the giving out of heat all over the body. In the web of a frogs foot the white cells have been seen to wriggle their way through th closed walls of the minute capillaries and wander about as if lost or

looking for something; and this they are enabled to do by virtue of their property of amæboid movement or rapid change of outline, so that a cell is at one instant round as a ring, and at another as full of points or prolongations as an unripe mulberry, and this change is effected with inconceivable rapidity, so that they look like insects in motion, but from out their interiors issue little granules, which are now recognized as the non-nucleated red cells, and this constitutes their claim to be called white or parent corpuscles. On an average in health there is one white to five hundred red corpuscles. In certain diseases the proportion may even be as high as one in ten.

The best chemists declare of blood constituents, that in 1,000 parts:

Water takes		•••	•••	779
Corpuscles		•••		141
Albumen		•••	•••	69°4
Fibrine		•••		2.5
Extractive salts,	&c.		•••	8.4

so that three-fourths of the blood consists of water, holding certain salts in solution, and the rest can be burnt as solid matter, if we like to try. But the application of a blister to the skin will only bring into view a quantity of straw-coloured fluid from the blood. It will look like water, but it will not behave like water under heat. It will not fly off into steam. On the contrary it will grow thicker and thicker till it looks like jelly. In reality it has turned into fibrine and serum, and if left to dry will almost crystallize like gum. The presence of this fibrine in the blood is a test of good health; so that it is not the number of the blood corpuscles that builds up our tissues but the plastic power of the "liquor sanguinis" of which they are the carriers and distributors. Now the chemical character of blood has been found to vary in different vessels. In the veins of the stomach, the spleen, the liver, and of the digestive canal, it is somewhat different to what it is expected to be in an ordinary vein, and the changes are effected by the addition of new materials from the food, after they have undergone elaboration and preparation in those vital organs. Thus blood has excess of fibrine in arteries, with less of albumen and fat and carbonic acid; but with three times as much oxygen as you would find in venous blood; where (as in the lungs) it is known to be darker from excess of carbonic acid and the products of combustion. How is this? If you put your ear to a man's chest, you will be conscious of a thumping and rythmic throbbing sound coming from the heart; and of the cooing, whistling, and rushing of air into and out of the lungs which accompanies his breathing. The two actions—pulsation and respiration—have a certain relation to one another. In the one, a stream of blood is being impelled through the arterial systems; in the other atmospheric air is being exchanged for carbonic acid in the lungs; and as a rule, the heart in a minute beats seventy times or more, while the breathing would be fourteen or fifteen in the same time. The circulation of the blood has been proved by Harvey (in 1618)

to take place in closed vessels; and the direction of the stream is from the left side of the heart, through the arterial system of the body; and back again to the right side of the heart. This is called the greater or nutritive circulation, and is made up of an arterial tree branching into minute twigs; and of numerous venous streamlets merging at length into a tidal river called the "innominate vein." At this stage the blood is black and foul, and to purify it of its injurious gases, it is sent on a special detour through the two lungs, where being distributed over the lining membrane of the myriads of minute air cells into which the lungs are subdivided, it parts with the carbonic acid, and imbibes oxygen, and then rushes back bright and red to the left side of the heart as before. The whole of this process takes about half a minute, and is called the lesser or depurative circulation.

The heart itself could not carry on two distinct circulations at one and the same time, if it were not constructed and divided in a peculiar way; so that the lungs borrow blood from the right side and return it by the left; through the agencies of receiving chambers and folding doors called auricles and ventricles, with valves and special vessels of supply and exchange. Each side of the heart has its separate set of chambers. These are united by special arrangement of valves, so that the current of blood can only be made to flow in one way, viz., from right to left; and the blood itself is propelled by the rythmic contraction and squeezing of spirally-arranged muscular fibres; and the regular opening and shutting of tricuspid and semilunar and mitral valves, so as to prevent regurgitation. The machinery for doing this work is twice as strong and dense on the left side of the organ as it is on the right; and the reason is obvious—the circuit in the lungs being shorter and more slowly effected than in the arterial system of the left side. In both cases alike the "ventricles" contract much more slowly than the "auricles," and always empty themselves completely, so that about three ounces of blood at each stroke of the heart is simultaneously being forced into the greater and lesser circulation, and in the vacuum thus created, the stream of blood presses on to fill the space, and be sucked up by the pumping action of the heart.

The movements of blood in the lung must be taken on trust; but in effect the lungs are bags of very thin membrane, folded and refolded into minute little pouches, joined by connective tissue; and gaining substance from the infinitesimal branchings and rebranchings of the windpipe and the bronchial tubes, which open out into their interior. A branch of very fine coral is not unlike them in their tenuity and hollowness, but it is lacking in contractility. These minute tubes are, moreover, elastic to give admission to the air, and terminate in closed cells, and are beautifully displayed when mercury has been injected into them. The air cells consist of a very thin membrane, and are arranged in groups in what are termed "intercellular passages"; so that if a small bronchial tube, upon which they are clustered, gets plugged up by the quantity of mucus or

epithelium scales shed from their floors under irritative cough, or chronic bronchitis—the supply of air is lost to all the air cells which are dependent for it on that particular tube. Hence the importance of not neglecting the simplest cold, or allowing it to turn into a "winter cough"; as from constant irritation the membrane gets thickened and secretes more and more scales or phlegm in consequence. So much for the inside; but on the outside of the walls of the air cells ramify the capillaries of the pulmonary artery and vein, so that the little cups are quite invested by them; and here it is that oxygen is imbibed, and carbonic acid and water eliminated from the system by what is called the law of endosmosis and exosmosis.

By this is meant, the affinity which it is known that liquids of different densities have for interchanging with one another, when separated by thin membrane; so that if a fresh bladder containing a solution of salt or sugar and water be plunged into a vessel of perfectly pure water, in a short time it will be found that the denser fluid has escaped through the membrane, and been replaced by the lighter one. Practically something of this kind takes place in the air

cells, and between arterial and venous blood.

Such, then, is the nature of the circulation! When once the blood is ready for distribution, it is handed over to the great pay-master of the body, and the heart forces the current into the minutest vessels; and as fast as this blood-money is being paid out, it is being paid back again to the lungs for purification. And if this were all, there would be no need for new coin to be issued from the Mint; but in the wear and tear of life, even blood corpuscles are apt to be worn to shadows of themselves; and hence the vital necessity for fresh supplies from the great digestive system and from the food.

From infancy to extreme old age, our diet is always being varied; but in reality our food always consists of proteid compounds—and has no value of itself, unless it contains carbon, and nitrogen, hydrogen and oxygen. You may vary the form of food, and cook it in any way you please, but you cannot nourish the tissues except out of proteid compounds. To test this point, you have only to burn a pound of blood or a pound of flesh, and all you will get out of them will be ammonia, carbonic acid and water, and a few ashes

or salts.

Now the process of digestion is not confined to the stomach. It commences in the mouth, and is continued throughout the whole length of the digestive canal. For convenience of description, this tract is divided into different compartments; and in them the food is treated very much as we treat the materials of a good salad; when having chopped up the ingredients of our meal as fine as we can, we sprinkle them with salt, dose them with vinegar and oil, add the mustard and eggs and what not, and stir up the whole till it is thoroughly well mixed, and ready for absorption. In the case of human digestion—the teeth tear and grind the viands, and the salivary glands convert starchy matter into dextrine or grape sugar. This

is effected by the agency of alkaline secretions. By means of the acid gastric juice (which flows from the tubular glands of the stomach, the moment food is introduced into that organ), the fibres are next dissolved and reduced to pulp, and churned into a milky fluid called chyme. By the peristaltic action of the stomach, the undissolved portions of the meal-chiefly the fats and hydrocarbons, are now moved into the duodenum (or second stomach) and there they are treated to the action of pancreatic juice and of bile, which combine to mix the oils up into an emulsion called chyle. this stage, as fast as chyme and chyle are being elaborated, they are at once absorbed by the lymphatic vessels, (which act as digestive veins to the gastric tubes), and carried off into a lymphatic trunk which anatomists call—the "receptaculum chyli," or "thoracic duct," and so conveyed into the chief vein of the body, just before it enters the right side of the heart. But although the liver and the pancreas have so acted upon the oils, there still remains a considerable quantity of nourishment in the food, and this it is the duty of the mesenteric and other glands to squeeze out of them to the last drop. It may therefore be truly said, that food is always outside of the body, even in the intestines, until its fluid digestive results have been absorbed by the radicles of the lymphatic ducts, and of the gastric and portal veins. In the lymphatic channel, lymph and chyle are probably nucleated as lymph or white corpuscles; but in the portal vein the results of digestion are conveyed to the liver, and there submitted to a special process, by means of which the saccharine matter of the food and the other products of digestion are fermented and refined, until they divide into two portions-one of which, the residuum or treacle called "bile," is excreted and stored up in the gall duct, while the other passes on into the general venous circulation; and is excreted from the lungs as carbonic acid and vapour. In the whole of this digestive process, various juices are being actively secreted from the salivary glands, the gastric tubules, the pancreas, the liver, and the mesenteric glands for the purpose of digesting out the nutritious elements of the food. If any of these organs were missing, or prevented from contributing its quota to the salad, there would be a manifest deterioration in the quality of the blood supplied to the heart. Thus if food be imperfectly chewed, but slightly or mixed with saliva, it gives extra trouble to the digestive glands; and if bile does not flow freely from the liver when it is wanted, the fatty portions of our food fail to become "chyle," and are ejected as useless matter from the bowels. Bile, in fact, is nature's purgative—and so the healthy state of the liver, as a gland, is of the utmost vital importance. For a long time it was held that the office of the liver was to secrete sugar from the blood; but the formation of "grape sugar" is now rightly attributed to the salivary juices; and the "dextrine" thus formed out of starch does not issue from the liver as crystallized sugar, but in combination with the hydrocarbons of digested food is resolved, perhaps, into the cholesterine of the bile, which consists of something more elaborate VOL. XV.

than mere yellow pigment cells. The very existence of fixed oils in the bile shows that it must have been excreted during the secretion of some nutritious principles out of those elements of food, which after digestion are unfit for venous or lacteal absorption, and are passed on to the liver. In that curious disorder called diabetes mellitus, there is marked dryness of skin, with intense thirst; and the presence of much sugar is detected in the secretions of the kidneys where it has no right to be. It is now assumed that the liver and brain are at fault for this, and a special treatment is now prescribed for the abatement of what formerly was looked upon as a nearly hopeless disease in an excretory organ; since grape sugar (C.12 H.14 O.14) can under fermentative action separate into two of alcohol (H.6 C.4 O.2); two of water (H. O.); and four of carbonic acid (C. O.2), it is but fair to assume that alcohol is burnt off in the process, and the water and carbonic acid set free in the lungs.

In speaking of secretion, we have had to make use of the terms "glands," and "ducts," and "capillaries," and it is worth while to show what we mean by them. If you place a section of your skin under a microscope, you will find that it consists essentially of minute papillæ clothed in a suit of epidermis cells, or scale armour; and that these epidermis cells are produced from the true skin or "dermis," which is much softer and more pliant, and envelopes the minute capillary vessels which ramify and interlace underneath it. There are no blood vessels in the epidermis scales, and in diseases like scarlatina they are thrown off from the skin with great rapidity and in large quantities, owing to functional over-activity. Between the papillæ are minute tubes opening on to the skin surface, and taking their origin in convoluted knots-also freely supplied with tiny arteries and veins. These are called the sweat glands; and fairly illustrate the action of all glands. They are well supplied with blood, and under reflex or direct nervous action they are stimulated to elaborate, store up, or ejaculate secretions from their ducts, just as the liver secretes bile, the lungs secrete carbonic acid, or the mouth waters under the encouragement of a pleasant meal.

From head to heel we are invested with an envelope of skin; but we have also an inner envelope—called the mucous membrane. This is protected by fine layers of pavement or epithelium scales; and if it were possible to turn a person inside out like an old glove, we should see that every inch of the digestive tract, and of every duct or conduit which pour their secretions into the channel of digestion, is protected from friction by these scales. Without their aid to facilitate the passage of moist particles through membranes, the circulation and distribution of fluids through the tissues of the body would be much impeded. They are, however, only adapted for moist surfaces; for if the mucous membrane be long exposed to the air it turns into skin. In the operation of making artificial noses—the skin is dissected from off the forehead—but not quite so altogether; a narrow bridge is left, and the bleeding surface being properly adapted to the

nose, it soon develops epidermis scales, and resists friction and air. There is thus a strong bond of sympathy between the mucous membrane and the skin, especially so, in a dry and changeable climate like ours at the Cape, and they help each other in their difficulties, as every physician well knows.

Before we approach the subject of *nutrition* and show how this takes place, we must glance at the minute structure of our tissues, to demonstrate the phenomena of growth and development, in its

relation to repair.

Of the sixty-three or more elements, of which all known matter is composed, more than one-quarter are present in the human body viz:—in 100 parts

Oxygen	• • •	•••	•••		72	)
Carbon		•••	•••		13.5	l .
Hydrogen					9.1	۶97 <b>'</b> 1.
Nitrogen					2.5	1
Calcium				•••	1.3	í
Phosphorus						1
	• • •	•••	•••	•••	1 15	
Sulphur		•••	•••	•••	• 1476	
Sodium		•••	•••		. I	
Chlorine	•••				.085	ł
Fluorine		•••			•08	72.9
Potassium					•026	
[non					101	
Iron	•••	•••	• • •	•••	•01	i
Magnesium		•••	•••		0012	i
Silicon		• • •	•••		*0002	j

Of these, nearly ninty-seven per cent. are composed out of oxygen, hydrogen, carbon and nitrogen, and as proteid compounds are burnt off in the tissues as ammonia, carbonic acid, water, and ashes or salts, but chiefly as water. Water, in fact, acts the part of a general solvent, and by its means alone is the circulation of nutrient matter made possible. The total amount taken into the body every day, one way or another, has been calculated to be about four-and-a-half pounds,

and very few people can do with much less.

Many of us who have attended the Cape Town Exhibition, will probably have inspected the Cabinet of cotton fabries sent there by Messrs. Rylands & Co., and will have been struck with the amazing number and beauty of the articles supplied from their extensive factories. From the finest muslin dresses to the most delicate thread-lace, every article is composed of cotton, and everything relating to their manufacture, except the raw material—is actually manufactured on the premises of the firm. Even the cylinders of wood upon which the thread is reeled, and the paper and ink which sets forth the excellencies and character of their wares, are wrought and worked up in the same buildings, in which widely different articles are prepared for the market. And just as it is with cotton in the factories of Messrs. Rylands, so it is with the proteid compounds in the private factory of every individual man. We have to meet all our wants

in our own frames, and elaborate out of the raw material of food, fluid, and gases, all the varied requisites for developing and repairing the fabrics and tissues of our bodies. Thus muscle, nerve, tendon, bone, and skin, are apparently evolved out of the same "plasma" or liquid; but they possess different elective properties, and pick out what they want, and nothing else, by means of their nutrient vessels, from the vital elements of the blood. That is to say the capillaries convey the blood corpuscles as near as they can to the tissues; and the tissues themselves, by reason of their cell formation, proceed to develop the nucleolus from the nucleus, by imbibition of the fluid supplied to them. The modern doctrine of "omnis cellula e cellula" is now generally recognized to be true, so that the theory of spontaneous generation is quite laughed out of the schools; and the atomic theory is held to be applicable to living organisms, however lowly. The mode in which reproduction takes place has long been the subject of great controversy; but it is now every where admitted that every cell is descended from some pre-existing (mother) cell. This takes place by fission—a process by which the "nucleolus" divides within the "nucleus" or cell, owing to the outer nucleus elongating, getting constricted in the middle, and then with great rapidity separating by a figure of eight movement into two distinct These in their turn absorb fluid, and go on developing fresh nucleated cells; so that in the structural composition of the human body, cells are in fact, physiological, no less than histological units.

It is chiefly by imbibition through the cell wall that nutrition is carried on, and this process is modified, hastened or even suspended by external conditions, such as changes of temperature, nerve influence, mechanical and chemical stimuli, and by electricity; while their decay and death may be produced by mechanical abrasion, as in the cells of the skin; and by chemical transformation which may be normal, or significant of pathological degeneration as in cancer.

When a part merely grows under exercise—as, for instance, in our muscles, its component cells go on reproducing themselves ad infinitum, subject to the laws of blood supply and demand; but when a part develops, as in a child's brain and physical frame, it attains a more complex nature, and gives rise to new vital phenomena and fresh combinations of material, so that the part is not only altered, but capable of a higher form of organization. This power of alteration may be called the power of awakening "dormant vitality"; and is well illustrated in a seed or in an egg—where the act of bursting its envelopes, under the chemical power of heat and moisture, is not the beginning of life, but only the continuation of it under different conditions.

The germ may be defined as that portion of the parent which is set apart, with power to grow up into the likeness of the being from which it has been derived. In every case alike, a new individual plant or animal is a portion of its parent, whether obtained by budding, or grafting, or cutting, by fission or by germination of seed. In the

case of an egg, the heat and moisture necessary for its development are not merely external forces; but are transformed into chemical or vital power by means of the dormant vitality in the egg, placed under their influence. It would be quite as impossible for the germ to begin life without external force, as without a supply of nutrient matter. Without the force wherewith to take up nutrient matter—the matter would be useless. And thus life may be said to begin, when a particle of organized matter, which has itself been produced by the agency of life, begins to transform external force into vital force, or, in other words, into a power by which it is enabled to grow and develop. This is the true beginning of life. The time of birth is but a particular period in the process of development, at which the germ, having arrived at a fit state for more independent

existence steps forth into the outer world.

No sooner is this effected, than the search for heat and moisture again commences, and in the animal as well as in the vegetable kingdom, the newly developed plant or chick adopts the same method. It at once begins to draw its sustenance from an external source; and whether it imbibes strength from the mother earth, or from the maternal breast, both of them attach themselves to the medium in which they were nurtured, and by methods appropriate to their condition in life. The first leaflets and tiny roots of the seedling have their analogues in the delicate lungs and toothless gums of the infant; and if air and warmth and moisture be denied to them, they both will perish from cold. In infant life, the mother remains for many months the true source of its growth and development; but if we examined the contents of a child's digestive apparatus after a meal, we should find that fat and sugar and albumen were the chief elements of its diet. In adults the digestive machinery is more complex, and yet human blood still retains its early characteristics under the microscope, although it has now to serve widely different purposes, and to minister to a much larger number of vital wants. The shape and size of the cells, however, remain much the same; and from this we may rightly infer that the blood cells are simply the bearers of nutritive fluid, and that each organ and tissue of the body develops and maintains itself out of the circulating fluid provided by the Creator for that purpose.

So far as we have gone into the physiology of life, we have shown that there is a circulation of arterial blood from the heart to all parts and organs; a circulation of venous blood through the divisions of the lungs; a circulation of lymph and chyle through the lymphatic system; and a circulation of grape sugar and albuminous products from the digestive radicles to and through the liver. By means of these four separate circulations, arterial, venous, lymphatic and hepatic, the system nourishes all parts, and absorbs, rejects, and assimilates to itself whatever elements of repair are contained in the food, or

require to be excreted out of the blood.

Without food and without heat we should soon find that life was

insupportable, and hence the vital need of oxydation, wherewith to

carry on the circulation and keep out the cold.

As much from instinct, as from convenience, the best diet for man is drawn from fruits, the grain of cereals, and from meat and fish, so that a pound of flesh and a pound of bread will always keep an average man in moderate health. The nature of the flesh, or of the grain consumed may be infinitely varied, but it needs a good deal of water to wash it down, and an unlimited supply of pure air to enable us to burn it off in the furnace of our bodies. The phrase of "one man's meat being another man's poison" expresses something of digestive difficulties; though our own experience in the matter of introducing poison into our bodies is generally confined to fluid concoctions with the pleasantest of tastes! Be this as it may, very poor people get more gluten out of the coarsest rye bread than their betters procure from the finest wheat; and find more oxygen imprisoned in clear running water, than do the rich in the strongest of fermented drinks. In fact every man in these matters is guided by his natural instincts and surroundings, and likes or dislikes fat, craves for salt and the phosphates, just as his body really demands.

With plenty of pure air and pure water, he has solved half of his difficulties, and can afford to thrive on a scanty bill of fare and laugh o'er potatoes or peas, or a dish of snoek and rice. For those whose means will permit them to live more daintily, the experiments of Dr. Beaumont will be full of interest and charm. He had the good fortune of attending a patient who had torn away a portion of the abdominal wall, and laid bare the interior of his stomach; so that at his leisure he was enabled to introduce food into the opening, and accurately observe all the phenomena of digestion in the living subject. The results were embodied in a table of dietetics, and have furnished the basis of much physiological inquiry since then. So that when we talk of a thing being difficult to digest, or easy of assimilation, we are very much guided by the time occupied by Dr. Beaumont's patient, in converting various articles of ordinary food into chyle or chyme. We at all events stand here on solid ground, and have no need to theorize as to the relative digestibility of different articles of diet.

But the greatest mystery of our life still remains to be explained! How is it that all these functions of the body are so accurately discharged? Whence come our will, our sense of joy and happiness, our ability to act and think, and carry on a number of intricate processes in the hidden laboratories of our bodies? For whereas all other organs and tissues are unconscious agents and active slaves in the operations of healthy life, to the nervous system alone are entrusted the guidance and control of all these ever busy labourers, night and day in the work of repair. With eyes to see, and ears to hear, and a brain to understand and interpret all external forces, the delicate nervous filaments of movement and sensation are practically the true promoters and guides of health and activity; and we cannot cut across the thread of the smallest of these without incurring a loss

at once in nutrition, in temperature, and in the due maintenance of the parts so paralyzed. When we talk of our brain, we divide it for convenience of description into two halves, and speak of the cerebral hemispheres as the seats of thought and sensation, and of the cerebellum at the base of the skull as the galvanic battery for issuing nuscular movements and controlling the passions; but in truth the brain can only be properly understood when we regard it as a whole. It is in reality a mass of nervous pulp, meshed in intellectual fibres, and coiled in the cavity of the skull in many a tortuous convolution. Deprive it of blood-supply and you reduce it to cream: Exhaust it by over abuse of its powers on unworthy objects, and it shrinks and degenerates: Make a right use of its intelligence, and it will expand with your physical growth, and strengthen with your strength. is, in short, the presiding guardian of our lives; and by its prolongations as motor or sensory nerves, or as nerves of special sense, ramifies in every cranny and corner of our bodies; and by means of the delicate ganglions, or turn-tables and electric telegraphic lines of the sympathetic system, is placed at the head of every feeling or thought or movement or emotion, just as much as the traffic manager of a double line of railway is kept in constant correspondence and communication with every workman or station located in his district. it were possible to macerate a body so as to show the nervous filaments in their connection with the brain and spinal cord, we should be astonished at the minuteness and completeness of nerve distribution. It is by the agency of these nervous radicles that muscular fibres are made to contract in the minutest tubes, or the various glands stimulated to secrete and elaborate. They control the reflex actions of sneezing, coughing or vomiting. They carry on their duties in spite of our will—they yield instant obedience to our slightest wish. If they are paralyzed, we grow cold: if they are unduly excited we grow hot. In a flash the act follows the thought, and the sensation the injury. The mere memory of a shocking incident will nauseate, and bad news will deprive us of appetite.

Take, for instance, the eye. It is made up anatomically out of lenses and certain optical mechanism; but vision is an act of the brain; and unless the brain can be made cognizant of what is reflected on that portion of its expanded self, which we call the retina, all the pictures in the world may be focussed on the visual apparatus without any of them being seen. The pupil expands in the dark, and contracts in the light; but the pupil can be acted upon by atropine or by opium, or may be thoroughly rendered motionless under the influence of chloroform or strong drink. It is the brain in the first instance that has to be treated. An immodest speech or a doubtful compliment can bring tears to the eyes or a hot blush to the cheeks of the listener; but the act of crying or blushing is purely reflex, and is caused by temporary paralysis of the nerves supplying the minuter blood-vessels so as to lead to dilatation and overflow of the blood-current in these capillaries. When we are

much interested we are apt to listen with breathless attention and only restore the balance by an involuntary sigh. The sigh is involuntary because we breathe without thinking, and when we think over-deeply we are apt to forget to breathe. So, too, with sea-sickness, which is generally due to the eye trying to accommodate itself to rapid alterations of focus, while watching the myriad moving surfaces and crested curves of the waves, until at length the brain grows giddy and confused and deranges the stomach. Even a foul smell or a close apartment can effect the sensorium; and it is just as easy to be sick in a swing, as in a railway express train, if we persist in looking down, or out of window, and taking note of the moving lines past which we are being whirled, to the confusion of the A flickering gas-jet if watched for any time a nervous person will produce a sick head-ache, and very few of us can walk through a large picture gallery for the first time without feeling giddy and indisposed for food. In the disease called tetanus or lock-jaw, the slightest touch or sound of your voice will suffice to set a patient off into the strongest cramps, so much so that the muscles of the abdomen have been made to contract until they were as hard as planks, and proved the feasibility of carrying out Sydney Smith's well-known joke at the expense of his physician, who ordered him to take a walk every morning on an empty stomach, and was asked to detail upon whose! Yet a whiff of choloroform will check the attack without curing the cause of this heightened nervous sensibility.

Yet it needs an effort of the mind to distinguish between a voluntary and an involuntary nervous action. Thus the heart keeps on beating in perfect rythm while we sleep or work, and leaps tumultuously under strong emotion, in spite of ourselves. We school our faces, and restrain our tempers, and hold our breath in the emergencies and annoyances of life; and yet the expression of anger, or fear, or hate, cannot altogether be effaced from our features, and sits there mocking us. We can act and simulate Love and Despair, but what we feel we are unable to hide. Nerves of motion and of sensation we can grasp, and demonstrate their existence to others; but this hidden chain of sympathy which almost eludes the scalpel by the subtle delicacy of its links, is forged no doubt for something higher than the mere expression of our passions, or the control of our powers. In our moral and intellectual life there are indeed no limits set to the industry of the brain, as the collector of external impressions, and the creator of all true happiness and of physical health. We do not live for mere eating and drinking like brute beasts. We hold our nervous centres as a precious possession, and from the varied strands of feeling, and pity, and sympathy with suffering and wrong, can twist the chords which place us in harmony with all our fellows. For as the body grows by what it feeds upon, so the mind of man expands and develops under the tuition and exercise of all our faculties. From good food, pure air, clean water, and a sound digestion we build up the physical frame, and keep each muscle and organ in health by moderate exercise, but unless we keep the brain and its muscles actively fed and employed, we shall fail to work out the sum of happiness, which it is in the power of every man or woman to add or substract from, by the agencies of thought, intelligence, and careful exchange and comparison of experiences. The brain can only give out what it has derived from without. If we have realized no high ideals, no broad views of life, no enthusiasm for humanity from others, we are like the savage of the desert, whose range of ideas is limited, and whose speech is confined to his wants; and our souls must soon dwindle to a mere thread of nervous matter, only capable of animal instinct and vegetable life. Deny us pens and books, and eyes and ears, and the noblest nature will soon languish and wither away into a night of nothingness in a dark and dreary prison-house; but give us thought, and fancy, and speech, and free interchange of ideas, and under the expansive influence of intellectual light and heat, we may make this world of ours, beautiful as it is, even fairer and more fruitful of good things than they found it in the dark ages. In moral and in physical life there can be no spontaneous generation. The germ must be found, and warmed till it vivifies. The tendency of modern science and philosophy is not to contract the dignity or the importance of the Creator, but to enlarge the circle of our knowledge, and fathom the depths of His beneficent laws for the benefit of His creatures. It is by strict obedience to His will in the regulation of our lives, that we too can become creators—creators of happiness, of knowledge, of increased power in every form, -for of all the sacred edifices in which we adore the Deity, none is capable of more improvement and enrichment than the living temple in which we are all, at once, worshippers and priests! As a living poet\* has well expressed it, in the "Anatomist's Hymn ":--

"Not in the world of light alone,
Where God has built His blazing throne,
Nor yet alone in earth below,
With belted seas that come and go,
And endless isles of sunlit green
Is all thy Maker's glory seen:
Look in upon thy wond'rous frame—
Eternal wisdom still the same!

"The smooth, soft air with pulse-like waves Flows murmuring through its hidden caves, Whose streams of brightening purple rush Fired with a new and livelier blush; While all their burden of decay The ebbing current steals away, And red with Nature's flame they start From the warm four tains of the heart.

<sup>\*</sup> Oliver Wendel Holmes, M.D.

- "No rest that throbbing slave may ask, For ever quivering o'er his task, While far and wide a crimson jet Leaps forth to fill the woven net, Which, in unnumbered crossing tides, The flood of burning life divides, Then, kindling each decaying part, Creeps back to find the throbbing heart.
- "But warm'd with that unchanging flame Behold the outward moving frame, Its living marbles jointed strong With glistening band and silvery thong, And link'd to reason's guiding reins By myriad rings in trembling chains, Each graven with the threaded zone Which claims it as the Master's own.
- "See how yon beam of seeming white
  Is braided out of seven-hued light,
  Yet in those lucid globes no ray
  By any chance shall break astray.
  Hark, how the rolling surge of sound,
  Arches and spirals circling round,
  Wakes the hush'd spirit through thine ear,
  With music it is heaven to hear!
- "Then mark the cloven sphere that holds All thought in its mysterious folds, That feels sensation's faintest thrill And flashes forth the sovereign will; Think on the stormy world that dwells Lock'd in its dim and clustering cells! The lightning gleams of power it sheds Along its hollow glassy threads!
- "O Father, grant Thy love divine
  To make these mystic temples Thine!
  When wasting age and wearying strife
  Have sapp'd the leaning walls of life,
  When darkness gathers over all
  And the last tottering pillars fall,
  Take the poor dust Thy mercy warms,
  And mould it into heavenly forms!"

# Notes on the Geology of the Mestern Districts.

## By Thomas Bain, C.E.\*

The geology of the country between Swellendam and Ladysmith is put down, by some authors, as the lower and upper Silurian, and by others as Devonian. Speaking only as an amateur, from fossils discovered and other data, I must say that I incline to the former theory.

Between Swellendam and Ladysmith, one object very worthy of remark is the warm bath behind the Tradouw, which, next to Brand Vley, is the finest in the Colony. The spring takes its rise at the eastern point of the "Warm-waters-berg," which is composed of quartzite, and has quantities of hematite, manganese, and iron pyrites about it. The proprietor of the farm, Mr. Jan Lutz, showed me a specimen of malachite found near the bath, but although I made a most diligent search, I did not succeed in finding another specimen, though it is not at all unlikely that copper ore may be found there. The place altogether has a most auriferious appearance, and would justify a properly organized search being made. The farm is splendidly adapted for a village, being nearly equidistant from Riversdale, Swellendam, Montagu, and Ladysmith. It has a supply of water sufficient to drive a series of mills, as there is a fall of fully one hundred and fifty feet in about four hundred yards, the distance from the spring to the homestead. The soil is the rich Karoo loam, of great depth, which the owner seems to take but very little advantage of. Had I left the service some years ago and gone in for that farm as I thought of doing, for the purpose of breeding ostriches on a large scale by utilizing the hot spring for artificial incubation of the birds, I should undoubtedly now have been able to lean over my "onder duer,"-a position which, in Boer slang, can only be assumed by those in good circumstances. Not many years ago I counted a troop of about thirty wild ostriches running close to the bath homestead. Now there is only one pair of domestic birds on the farm.

Between the Bath and Ladysmith the rocks are very much ripple-marked, and have a high dip—in some places almost vertical. About the village of Ladysmith there are quantities of fossil algæ of a spiral and rather singular type; and I have a fine trilobite found there also. A very intelligent gentleman, a Mr. Becker, residing there, gave me a drawing of a graptolite found close to the village, which he had presented to a friend of his, and consequently I had no opportunity of inspecting it. Assuming, however, that it was a genuine specimen, I look upon it as a most important discovery, as it is, more or less, a key to the Silurian system, no graptolites having ever been

<sup>\*</sup> Mr. BAIN (who is the worthy son and successor of the Father of South African Geology, Mr. A. G. BAIN), in forwarding this paper, says:—"These are merely geological and other notes jotted by the way-side on a long tour I lately had to the Gouph and Nieuwveld Mountains, on a road-surveying expedition."—Ed. C.M.M.

found in the Devonian rocks. It is, moreover, considered by many to be the gold fossil; so there is no knowing what that labyrinth of mountains between Ladysmith and Calitz Dorp—traversed in every direction by quartz reefs—may yet produce, especally in a klood called "Huis River" where the reefs are both conspicious and remarkable, running all in an easterly direction. In Caledon's Kloof I found abundance of spirifera, terebratulæ, trilobites, and incrinites,

&c., all in my opinion of Silurian origin.

The supposed total absence of mountain limestone in the Colony up to the time of the publication of Mr. A. G. Bain's geological map, militated also against that theory, this formation being so generally associated with the Silurian rocks; but since that time the blue mountain limestone, or an inferior kind of marble, has been discovered in various localities. Dr. Atherstone and myself traced it in an unbroken belt of at least forty miles long, from Meiring's Poort through the Cango to a farm near Calitz Dorp; and since then, I have discovered a large outcrop of it at Bakoven's Hoogte between Swellendam and Robertson, and it occurs in patches between Robertson and Worcester, and also at Worcester. I likewise found a large outcrop of it at Vogel Vley while I was engaged on the Worcester Railway Extension. Here you must pardon me for a little digression. I experimented on that stone, which I found to be extremely hard for its conversion into lime, and succeeded in producing a lime of better quality for building purposes than any I had ever used. sets almost immediately after use like cement, and consequently is very valuable for bridge building, especially under the water line. My successor, after I had rejoined the Public Works Department, carried out lime-burning there on a large scale, as all the bridges and culverts from Wellington to Worcester were built with it. By this discovery there was not alone a large saving effected to the Railway Department, but a good article brought into general use.

A small patch of a similar limestone was subsequently discovered about six miles from Wellington, and it is also found to a large extent at Troe-Troe (Clanwilliam District), and extends from there to Ebenezer at the mouth of the Olifants River, so that we have enough mountain limestone to supply the missing link in the Silurian rocks. We only want a few more graptolites to arrive at

something definite.

From Ladysmith I went through Seven Weeks Poort, a mountain gorge of about ten miles long, where some truly wonderful contortions and folds of the quartzite rocks are to be seen, which I shall endeavour to account for hereafter. The most cursory observer cannot fail to be struck with that marvellous gorge. The Gamka, Meirings, Toverwaters, and Buffels River Poorts—all in the same range—are very similar in their rock formations, but none are so remarkable as the Seven Weeks Poort. Thence, I passed through Boschluis Kloof, crossing a narrow belt of Silurian rock, very thickly-impregnated with fossils, similar to those found in the Caledon's

Kloof. By the way, in this kloof lives a most primitive Boer, who has the reputation of not being over nice in his dealings. When that pass was first opened he did a fair business in selling klipspringer biltongs to travellers; but as those bucks grew scarce he conceived the idea of potting baboons instead, and converting them into biltong for the unwary traveller; and this imposition was carried on for some time before the trick was discovered. Now, I need hardly say, there is no sale for biltong at Boschluis Kloof. At the Dwika River, which is a few miles beyond Boschluis Kloof, you come suddenly upon the stumbling-block of all geologists, viz., the claystone porphyry of A. G. Bain, trap conglomerate of Wylie, and the Dwika conglomerate of Dunn, by which rather vague appellation the latter gentleman has designated it on his geological map-no doubt from the fact of his having first observed it there. Dr. Atherstone, I do not think, ever committed himself to any specific name for this singular formation; but in our geological rambles and correspondence we always agreed that Wylie was the nearest to the mark. Hence I shall speak of it as the trap conglomerate. This remarkable formation extends from the Cedarbergen (Clanwilliam District) in an unbroken belt along the northern base of the Zwartebergen to the Fish River Mouth in the Eastern Province, and has several off-shoots in the neighbourhood of Meiring's Poort and Willowmore, besides detached parallel belts to the south of the Zwarteberg Range, which are nearly all shown on Dunn's map. Since the publication, of that map, however, I have had further opportunities of tracing it, and found it to crop out in a mountain gorge to the eastward of Willowmore, and behind the Wagonboomsberg near Montagu, which I always looked upon as the western terminus of it; but I have very lately found it at a place called Vink River, between Robertson and Worcester, which is diametrically opposite to the Wagonboomsberg, whence it runs in two parallel but broken belts through the Bosthjesveld, and terminates near Villiersdorp. I also found a small patch of it in the Hex River Valley, close to Worcester, at Mr. Naude's farm.

The trap conglomerate, as you are no doubt aware, is impregnated with fragments of all the underlying strata of whatever position it is found in—pieces of granite, clay, slate, Silurian shale, and an

occasional sandstone boulder, &c.

Mr. A. G. Bain put it down as a volcanic rock belched out of some huge crater in the interior. It is a long time since I read Mr. Wylie's report; but although he differs as to its name, I think he agrees with Mr. Bain as to its eruptive origin from some central volcano.

From specimens lately tested in England by scientific men, I have been credibly informed that they have put it down as a rock of acqueous origin; but, with due deference to their views, I feel confident that if they could have had opportunities of traversing it for hundreds of miles, and have seen it in its various stages, their

conclusion would probably have been different. From the observations I have had such ample opportunities of making, I shall not

readily subscribe to the water theory.

With the exception of the apparent strike of the trap between Wagonboomsberg and Vink River, (above described) where the Langberg intervenes at right angles to it, it has a general tendency to run in parallel belts with the main ranges of the Colony, which gives it the appearance in many places of perfect conformability with the adjoining rocks. Hence it is that some geologists have put it down as a sedimentary rock. But if closely scrutinized, it will be found to assume that form only where extraordinary outcrops occur and spread over the adjoining rocks with apparent uniformity; and if its direction be noted by continuing its line of strike from an eastern point of view, to where it apparently passes through under the Langeberg range to Vink River, coupled with the fact also of its having been found in a mountain gorge near Willowmorerunning adversely to its general direction, I think that some reason is adduced to dispel the arguments about its general conformability with the other rocks. It is a problem, however, containing a vast amount of scope for further investigation by geologists.

I look upon the trap conglomerate as an igneous rock of intrusive character. From the various positions it has been found in—as I have endeavoured to describe—I consider it to form the base rock of the Zwarte Berg, or the back-bone range of the Colony, as it is called, which during its intrusion or upheaval contorted and twisted the masses of quartzite into all sorts of shapes while in a plastic state,

as remarked upon in those several Poorts.

The strongest evidence, however, of its igneous character is undoubtedly its metamorphic effect on the rocks for about a mile on either side of it, which is so palpable that any ordinary observer can tell by the altered and burnt-like appearance of the rocks, when he is approaching the trap. In that way, I have on several occasions traced and found it where I had not the least expectation of so

doing.

In reference to the trap, and its connection with metals and minerals, it may not generally be known that the "Kragga" gold nugget, discovered some eighteen years ago—which I believe is still to be seen either at the office of the Commissioner of Crown Lands, or at the Museum, was picked up just on the verge of the trap conglomerate, where it protrudes the Silurian rocks, the very place where gold should be sought for. Indeed, I have always considered that the junction lines of the trap with the other rocks cannot be too closely scrutinized for metals and minerals, by those who have opportunities of so doing. The colonial name this rock is known by amongst the farmers is "Bosjesman's Klip."

The nugget found at Spreeuw Fontein in the Prince Albert district, some six years ago, now in possession of Mr. Samuel Luttig of Uitkyk, on the Beaufort road, although picked up where the forma-

tion is too recent for gold, might have been carried there by Bushmen from the trap rocks, which are only about six miles from where the nugget was found, where there are unmistakable traces of extensive Bushman kraals.

The gold discovered at Laken Vley—which by the way shows a want of enterprise in our mercantile community that it has not yet been worked by a company or some private firm—is also close to the trap rock. Although it does not actually protrude there, there is strong evidence of its underlying the quartzite and Silurian shale,

which are subverted and tilted in all sorts of ways.

From the Dwika, I struck diagonally across the Gouph, through its blue shale beds, which for the first ten or twelve miles have a wave-like dip, gradually becoming less and less till it assumes a position almost perfectly horizontal. In this section of it I found quantities of fossil wood highly silicified, and some plant impressions. As soon as the horizontal beds were reached, I found several bones of saurians, accompanied also by fossil wood, and plant impressions, and ripple-marked rocks, all strongly suggestive of shallow waters,

which the large saurians used to gambol and wallow in.

At Jan Willem's Fontein, a place already of note in the annals of geology, where Atherstone and myself discovered some fine fossils when we were on the Karoo gold investigation, I found some unusually large vertebræ and other bones of saurians, also fragments of skulls, which I carefully spotted for the British Museum Collection I have in store. I also found some at Uitkyk, the farm of Mr. Luttig, a most intelligent man, who is the only farmer I ever met with who takes a thorough interest in geology, and knows a good deal about it from the fact of his constant application to Dutch

works on the subject.

From Uitkyk I crossed the Upper Gouph, which is about thirty miles broad, before reaching the Nieuwveld Range. This tract of country is literally strewn with fossil bones, but in bad preservation. It is in fact nothing less than "a valley of dry bones." At the foot of the Nieuwveld mountain, at Mr. Piet Van Vueren's farm, "Palmiet Fontein," I unearthed a very fine skull and part of the skeleton of a "Pareiasaurus Serridens," and when it was placed on old Piet's stoep and he saw the rows of serrated teeth, his face was the picture of astonishment, exclaiming-"Alamagtig! wie het dit kon dink dat op Palmiet Fontein van's leeve zulke gevaarlyke ongedierte was." The whole household was then called out to examine and pass their criticisms on the monster, but none expressed such surprise as Oom Piet, who could not forget that Palmiet-font was once the haunt of such dangerous monsters. Judging from the fossil indications there, I am rather sanguine about making a good haul at Palmiet-font, where I hope to make my head-quarters for a couple of weeks, having been promised every assistance by my hospitable old friend, Oom Piet, who really is the type of a Karoo gentleman. Reaching the summit of the Nieuwveld range at an altitude of nearly two thousand feet above Palmiet-font, I found fossils equally plentiful there, but of smaller species. Nothing larger then the size of an ordinary dog's head did I find, while in the Gouph it was just the reverse, all the big-wigs scemed below; and it is rather remarkable, too, that to the westward of Beaufort I have not found a single dicynodon, from which I infer, that, like animals of the present day,

each had its favourite locality.

On my return from the Nieuwveld plateau, I endeavoured, accompanied by Mr. Luttig, to trace the coal alleged to have been found at De Wet's farm, near the source of the Dwika, by a man named Koen, but as he would not accompany us without a larger reward then we felt justified in giving him, we tried to trace it ourselves, and after making a diligent search, accompanied by the owner of the place and his two sons, we gave it up as we failed in finding any trace of coal. From a few coal fossils found there, and from the fact of a small seam of coal having been found at P Viviers farm, about forty miles to the eastward of De Wet's, which Dr. Atherstone and myself inspected some years ago, it is not at all unlikely that Koen's discovery may be a genuine one. mountains, however, are so intricate that it would have taken me a much longer time to search them properly than I had at my disposal, so I hope to renew the search when I have more leisure time. the Nieuwveld rocks are identical with those of the Stormberg, and as the coal seam at Vivier's place is about the same altitude also, it is not improbable that it is a continuation of the same bed, but as the rocks dip slightly towards Stormberg, it is just possible that we are at the thin end of the wedge.

I took some trouble while among the greenstone dykes on the Nieuwveld plateau (Yzer Klip koppies, as locally called by the Boers), to explain to the farmers their importance in connection with springs and water finding,—and it is surprising what an interest was evinced by them in the matter, and how eagerly such information is sought

after.

Those dykes commence just below the Nieuwveld range, and are very numerous on its plateau, extending far towards the interior. They are more or less bounded on the south by the Roggeveld, Nieuwveld, Camdeboo, Buintjes Hoogte, Boschberg, and the Kroome ranges—near Fort Beaufort—thus embracing more than half of the upper portion of the Colony. They run in every direction and shape, varying in thickness from thirty to one thousand feet, but the common average is about one hundred feet in thickness and about seventy feet in height. I am speaking of the roots of the dykes only—because the igneous matter is in some instances dissemminated to such an extent that they appear much larger.

They were upheaved, as you are aware, subsequent to the depositions of the Karoo beds, forming subterranean walls by which the drainage is collected and delivered in the shape of springs wherever there is a break in them, or "Poortje" as the Boers call it. The strength of the spring is naturally proportionate to the

drainage area above the dyke.

In cases where the spring is not in such porportion (making due allowance for the difference in the rain-fall, which varies considerably in the different parts of the Colony) there is sure to be some

underground leakage.

This can be traced by moist spots below the dyke, or by the growth of rushes (locally called Beisjes), and other rank vegetation, and should either be stopped by sinking a shaft on the upper side till it is found, or opened in the form of a new spring below the dyke. The dykes, besides being very compact, have invariably a coating of calcareous matter on their outer lines, which render them more impervious, but an occasional one is found which has so many underground leakages as scarcely to produce any spring at all, although it has a good drainage area. In such cases by cross-cutting the dyke at the aperture of a sufficient depth to admit of the drainage being diverted to it, the spring will naturally be developed. There are instances, too, where the water escapes laterally for want of sufficient pressure to force it over the aperture of the dyke, which should be well investigated before any expense is incurred to recover the water. The Boer in all such cases squanders his money away by blasting in the shale beds below the dyke, and generally abandons his search just where it ought to have commenced, within, perhaps, a few feet of the much-desired element. Some of the would-be knowing ones go to the other extreme, with a determination of adding to their water supply when there is not the slightest chance of doing soif the above rules of drainage are observed—and they blast a trench right through the dyke along side of the spring, which not unfrequently results in the sudden transposition of the spring to a lower level, to the detriment of their little irrigated patches of land and gardens. The ignorance displayed in their attempts at water-finding is truly lamentable, and can be traced in most instances to the advice of spurious water-finders. They are so credulous, that any imposter who sets up an old ship's quadrant, flourishes a wand, and talks of his having been down in a mine of hundreds of feet deep, and therefore knows all the "water aare" in the bowels of the earth, which he compares to the arteries and veins in the human system, is at once put down as a great authority by those simple-minded people. Upon such advice they set to work to find water, after paying the imposter handsomely for it.

In the construction of dams also, which for the Karoo farmer is a safer investment than blasting for springs after the above fashion, some absurd blunders are made—not unfrequently resulting in heavy losses. Much good can therefore be done, when opportunities occur, by assisting those people. Field lectures by the Hydraulic Engineer, in his rambles through the Colony, would be well at-

tended and would effect much good.

In the Gouph, where there are no greenstone dykes, nature has providentially substituted "lime seams," 1 shall call them, or dykes Vol. XV.

of calcareous matter, which doubtless extend to a great depth. The fissures of the Karoo shale are almost hermetically sealed in the line of strike of that rock, and run for miles at a stretch, producing springs wherever there is a breach in the seam, or where it crosses a river. Those seams are upon the whole not so certain to depend upon as the greenstone dykes, being more subject to leakages.

The Boers invariably treat those lime-seams, in searching for water, the same as they do the dykes, by excavating on the wrong

side of them.

I investigated the well-known "water aar" theory of the Karoo Boer, which I found to be nothing but a lime-seam. From the fact of its having a line of moisture underneath, it causes certain Karoo bushes to grow taller and more luxuriantly than the surrounding ones, forming thus a conspicuous line for the Boer to trace the water by. The theory, therefore, holds good, but it is safer to go by the rocks than the bushes, because I have seen innumerable instances where the moisture lies so deep that vegetation is not in any way affected by it.

Geology is so intimately connected with water-finding that a knowledge of it would be of incalculable advantage to the farmers, but I am afraid it will be a long time before they go in for the study of it. As education advances amongst them, the rising generation will in the course of time no doubt discover the many latent treasures of the Karoo, which will fortify them to a consider-

able extent against the much-dreaded droughts.

While on the subject of springs, I hope it may not be out of place to express a wish that a Parliamentary grant may be made for the purpose of analyzing and reporting upon the merits or otherwise of the numerous mineral, tepid, and hot springs of the Colony, which, I fancy, could never be entrusted to abler hands than those of the Professor of Chemistry of the South African College. I feel confident that the result of such an investigation will be productive of much good, especially in a medical point of view.

Cape Town, August, 1877.

# The New Year's Greeting.

Bright days and windy weather Lie mingled all together Within my hand, with flowers That summer holds in thrall: With sun-gilt, tinkling showers, And dawn of gladsome hours: Fair gifts, scarce worth the losing While green leaves fade and fall. Yours—if I had the choosing—The fairest of them all.

# Capital Punishment.

## By the Hon. Major Erskine.

I BEG to offer some observations with reference to Mr. Bright's recent speech on capital punishment, as I have had considerable experience with regard to this subject during my long service in Natal as Colonial Secretary, and also during nine years in Tasmania, where I had, as Stipendiary Magistrate, charge of a large district in which there were four stations of five hundred convicts each.

My father-in-law was Comptroller-General of convicts in Tasmania during twenty years, so that I had good opportunities of knowing the feelings of that class of men, and I am sure that that colony would have been overrun with bushrangers if the punishment for a convict

found with arms had not been death.

As a young man, also, when I was living at Munich where my father was British Minister, I was frequently sent to accompany strangers to see the prison there, and the sight of the convicts, who having been convicted of murder were sentenced to imprisonment

for life, was so sickening that I could not bear it.

In Bavaria no murderer is executed unless he confesses his crime, which, of course, seldom happens. These men were confined by fours, in rooms, and kept constantly chained by the leg with a length of chain which prevented their getting at each other, and they were so ferocious that visitors were not allowed to go within reach of them lest they should be killed by the convicts in order that they might be

executed, and so put out of their misery.

In Tasmania there were many desperate convicts, bushrangers, murderers, &c., who should have been executed, but whose sentence from one cause or another had been commuted to imprisonment for life. These men were sent to Norfolk Island, the penal settlement, where owing to their desperate characters they were compelled to keep them on a chain and so they were worked, when they would work at all, which was not often. On several occasions they murdered their keepers, and they were constantly making plans for taking the Island, although there were two companies of soldiers there. More than once men cast ots which should kill the other in order that the survivor might be sent to Sydney to be tried and hanged, enjoying, meanwhile, a voyage and the company of his "pals" in Sydney Gaol. These men called themselves Norfolk Island "pebbles," and they and the other pebbles there, among their plans for taking the Island, made one, when they rose and killed several of the warders, the mutiny not being quelled until several of them had been killed. On this occasion the plan was to kill every free man on the Island; the women were all apportioned to certain convicts; and the Governor (a most humane man) was to be roasted alive and his children were to be made into a huge pie, of

N 2

which every convict was to partake, in order that all might be alike complicated in the affair. A Commission was sent down from Tasmania, and fourteen of the ringleaders were hanged. All sorts of measures for the management of these desperadoes were tried, and among them one by the celebrated Captain Maconochie, which had for its object the taming of these beasts by conciliation, which ended in making such a Pandemonium of the place that he was dismissed,

and shortly after the convicts were removed.

Their was another place called Tasman's Peninsula in Tasmania, where large gangs of such convicts were kept and worked in gangs, the neck of the Peninsula being guarded by soldiers and dogs, and an arm of the sea which divided it from the mainland, by sharks, which let no man escape them. There they made the most extraordinary attempt to escape, constructing floating machines from bundles of rushes up to very fair boats, in the forests of the Peninsula, and a few did so escape, particularly one lot, who seized the Commandant's boat and escaped in it, turned bushrangers, giving myself and twenty soldiers a long and arduous chase after them. They subsequently escaped to the mainland of Australia, where they were taken. It was usual for such men to take with them when they took to the bush a weak young man to kill when starving, and the flesh of such victims was frequently found on them when taken.

All this shows that imprisonment for life is a far more terrible punishment than death, and abhorrent as the idea is of strangling a fellow-creature deliberately, as Mr. Bright puts it, it is far more horrible to contemplate sentencing him to a life-long torture, at least to those who have seen the process in operation. We know, too, that the Governor-General of India, Lord Mayo, was assassinated on the Adaman Islands by a convict of this description, who had no spite against him personally, but was simply rendered desperate by his position and was tired of life. Mr. Price, a former Governor of Norfolk Island, was also killed afterwards by convicts in Melbourne

Gaol for the same reason.

In Natal, although such convicts were not confined separately, but worked with the gaol gang, the faces of some of them haunt me with those of the Munich murderers to this day. With Kafirs the fear of death is infinitely greater than that of imprisonment for life as they know that they will be fed well and housed, &c. There is something peculiarly horrifying to the Kafir mind in our deliberate method of carrying out the law; feeding and caring for them well to the last moment, together with the knowledge that no interest or caprice of the chief can avail them anything. I remember in Natal a Kafir who was being taken to execution for murder shrieking the whole way for help, crying "The white man is going to kill me on purpose," showing that the calm deliberation of the process had made a deep impression on his mind.

I do not think that there is any chance of the law being altered in this respect at home, and I am sure that it would

Sonnet. 181

have the worst possible effect here among the coloured population. If there are any here who take what I cannot help thinking the sentimental view of the question, I would ask them to read again the account of the "Prisoner of Chillon," whose sufferings were called vividly to my mind when passing the gloomy prison of King Bomba, on the Island of Pantelaria in the Mediterranean:—

"The fish swam by the castle wall,
And they seem'd joyous each and all,
The eagle rode the rising blast,
Methought he never flew so fast
As then to me he seem'd to fly."

Were it not for the inextinguishable element of Hope in the human heart, how few are there who would prefer such a fate as that which I have depicted to the short but sharp remedy for all human woes.

The only argument which cannot be met is that of the possibility of the convict being innocent. But in these days that is reduced to the infinitesimal. Indeed it is generally considered that the law of evidence is too lenient, and even if "now and then" it does occur, how few are the chances that the innocent would be discovered, and even if so would not an innocent person be far better off in his grave than in suffering even for a time the horrors of a condemned criminal's life?

### Sonnet.

I stood amid the tombs upon the Hill,
Then sighing turned to gaze upon the Bay
With dancing barks, and crested billows gay,
And ocean wide beyond, where lingered still
The roseate beams of the departing day,
Fading in the far distance to dull grey.
Soon the last sunbeam left the saddened waves;
And as I gazed around me on the graves,
I thought how oft a fond and aching heart,
Whose sea the hues of love had tinted o'er,
Had watched the loved smile fade, faint, and part,
Yet still must toss its sad waves to the shore,—
Waves where love's roseate beams might never dart
Their brightning influence for evermore.

B. M. R.

## Vetter of the Magnates Scotine.

THE Hon. R. Graham, of the Mains, Wynberg, possesses a very valuable collection of most interesting manuscripts and old documents, relating to the great Scottish family, of which he is a worthy representative. Amongst those of later date are several autograph letters and verses of the Poet Burns, which have not yet been published. These were chiefly addressed to R. Graham, of Fintry, whom the Poet gratefully refers to as

Friend of my life, true patron of my rhymes, Prop of my dearest hope for future times.

In the more ancient manuscripts, however, there is the fac-simile of the memorable letter of the Magnates Scotiae to the Pope John XVII. This was written at the time of Robert the Bruce's struggle for Scottish independence, in 1320, when the Pope, in compliance with the entreaty of Edward II. of England, had issued an order of excommunication against Bruce and his adherents. The nobility of the land—no longer as Saxons, Normans, or Celts, but under the appellation of Scotsmen—assembled at Abirbrotoc, and addressed the following quaint and energetic remonstrance to His Holiness:—

To the Most Holy Father in Christ, and Lord John, by the Divine Providence, Chief Bishop of the Most Holy Roman and Universal Church, his humble and devout Sons, Duncan, Earl of Fyfe, Thomas Randolph, Earl of Morray, Lord of Mann and Annandale, Patrick Dumbar, Earl of March, Malis, Earl of Strathern, Malcom, Earl of Lennox, William, Earl of Ross, Magnus, Earl of Caithness and Orkney, William, Earl of Sutherland, Walter, Steward of Scotland, William Sawles, Butler of Scotland, James, Lord Douglas, Roger Mowbray, David Lord Brechin, David Graham, Ingelram Umfravill. John Monteith, Warder of the County of Monteith, Alexander Frazer, Gilbert Hay, Constable of Scotland, Robert Keth, Marischal of Scotland, Henry Sinclair, John Graham, David Lindsay, William Oliphant, Patrick Graham, John Fenton, William Abernethie, David Weyms, William Muschet, Fergus of Ardrossan, Eustach Maxwell, William Ramsay, William Mouat, Alan Moray, Donald Campbell, John Cambrun, Ronald Lechen, Alexander Seton, Andrew Lescelyn, and Alexander Straton, and the rest of the Barons and Freeholders. and whole community of the Kingdom of Scotland, send all manner of filial reverence with devout kisses of your blessed feet.

Most Holy Father and Lord,

We know and have gathered from ancient acts and records, that among other great nations, this of Scotland hath been highly praised,—this nation, having come from Scythia the greater, through the Tuscan Sca, and by Hercules's pillars, and having for many ages taken its residence in Spain, in the midst of a most fierce people, could never be brought in Subjection by any people, how barbarous soever; and having removed from those parts, above twelve hundred after the coming of the Israelites out of Egypt did by many victories and much toil, obtain these parts in

the west which they still possess, having expelled the Britons, and intirely rooted out the Picts, notwithstanding of the frequent assaults and invasions they met with from the Norvegians, Danes and English; and these parts and possessions they have always retained free from all manner of servitude and subjection as antient Histories do witness. This Kingdom hath been governed by an uninterrupted succession of an hundred-andthirteen Kings, all of our own native and Royal Stock, without the intervening of any stranger. The true nobility and merits of those Princes and People are very remarkable, from this one consideration, tho' there were no other evidence for it, that the King of Kings the Lord Jesus Christ, after his passion and resurrection honoured them, as it were the first, though living in the outmost ends of the earth, with a call to his most holy faith; nor would he have them confirmed in this faith, by any other than his own first Apostle, tho' in order the second or third, St. Andrew, the most meek Brother of the blessed Pcter, whom he would always have to be over us, as our Patron. From these weighty considerations, our most Holy Fathers, and your Predecessors, did with many great and singular favours and privileges, fence and secure this Kingdom and People as being the peculiar charge and care of the Brother of St. Peter: so that our nation hath hitherto lived in freedom and quietness, under their protection, till the magnificent King Edward, Father to the present King of England, did, under the colour of friendship and alliance in innumerable instances oppress and infest us who were conscious of no fraud or deceit, at a time when we were without a King or Head, and when the people were unacquainted with wars and invasions. It is impossible for any, whose own experience hath not informed him to describe or fully to understand the injuries, blood, and violence, the depredations, fire, the imprisonments of Prelates, the burning, Slaughter and Robbery committed upon holy Persons and Religious houses, and a vast multitude of other barbarities, which that King did execute on this people, sparing no Sex or age, Religion, or order of men whatsoever. But at length by His assistance who can heal after wounds, we were freed from those innumerable calamities by our most serenc Prince, King and Lord, Robert, who, for the delivering of his people, and his own rightfull inheritance from the Enemies' hand, did, like another Joshua or Maccabeus, most chearfully undergo all manner of toil, fatigue, hardship, and hazard. Whom also by the divine providence, the right of succession, the laws and customs of the Kingdom, which we will defend till death, and by the due and lawfull consent and assent of all the People, we have made our King and Prince. To him we are obliged, and resolved to adhere in all things, both upon the account of his right and merit, as the person who hath restored the People's safety, in defence of their liberties. But after all, if this Prince shall give up these principles, he hath so nobly pursued, and consent that we or our Kingdom be subjected to the King or People of England we will immediately endeavour to expell him as our enemy, and as the subverter both of his own and our rights, and will make another King, who will defend our liberties. For so long as there shall but one hundred of us remain alive we will never subject our selves to this dominion of the English. For it is not glory, nor riches, nor honour we fight and contend for, but for our liberty alone, which no honest man will lose but with his life. For these reasons most reverend Father and Lord, we do, with most earnest prayers, on our bended

knees, and from our hearts, beg and intreat your Holiness, that you may be pleased, with a sincere and cordial pity, to consider that with him, whose Vicar on Earth you are, there is no respect nor distinction of Jew nor Greek, Scots nor English, and that with a tender and Fartherly eye you may look upon the calamities and straits brought upon us, and the Church of God by the English; and that you may admonish and exhort the King of England (who may well rest satisfied with his own possessions, since that Kingdom of old used to be sufficient for seven or more Kings) to suffer us to live at peace within that narrow spot of Scotland beyond which we have no habitation, since we desire nothing but our own; and we on our part, as far as we are able, with respect to our own condition, shall effectually agree to him in everything that may procure our quiet. It is your concern, most Holy Father, to interpose in this, when you see how far the violence and barbarity of the Pagans is let loose against Christendom, for punishing of the sins of the Christians, and how much they daily encroach upon the Christian territories, and it is your interest to notice that there be no ground given for reflecting on your memory if you should suffer any part of the Church to come under a scandal or eclipse (which we pray God may prevent) during your time. Let it therefore please your Holiness to exhort the Christian Princes, not to make the wars betwixt them and their Neighbours a pretext for not going to the relief of the Holy Land; since that is not the true cause of the impediment. The truer ground of it is that they have a much nearer prospect of advantage, and far less opposition in the subduing of their nearer Neighbours. And God (who is ignorant of nothing) knows with how much chearfullness, both our King and we would go thither, if the King of England would leave us in peace, and we do hereby testify and declare it, to the Vicar of Christ, and to all Christendom. But if your Holiness shall be too credulous of the English misrepresentations, and not give firm credit to what we have said, nor desist to favour the English to our destruction; we must believe that the most High will lay to your charge all the destruction of the Souls and Bodies, and other calamities that shall follow on either hand betwixt us and them. Since that we are and shall be, as in duty bound, the obedient sons of the Vicar of Christ, we commit the defence of our cause to Him, who is the Sovereign King and Judge; we cast the burden of our cares upon him, and hope for such an issue as may give strength and courage to us, and bring our enemies to nothing. The Most High God preserve your serene Holiness long to His Holy Church.

Given at the Monastery of Abirbrotoc, in Scotland, the Sixth Day of April, in the Year of Grace, One Thousand Three Hundred-and-

Twenty, and of our said King's reign the Fifteenth Year.

## The French Refugees.

THE History of the French Protestant Refugees who made their home at the Cape in the seventeenth century, is now being inquired after in Europe. The brief notice of the Huguenot emigration which appears in "South Africa—Past and Present," has served to draw attention to the subject.

Any of our readers or contributors who can supply accounts or particulars of the families who sought a refuge in South Africa, will render a service to those who are engaged in following up these researches. Mr. Browning, Secretary of the French Protestant Hospital London, writes to us, that the Directors of that Institution have already collected some rare and valuable works on the special subjects of the labours and sufferings of those who maintained the life of the French Protestant Church; and that he will feel obliged by the recommendation of any others, or any personal narratives, especially relating to the families at the Cape.

The French Protestant Hospital, Victoria Park, founded in 1718, is now a wealthy corporation—the stately building occupied by it having been erected at a cost of more than f(20,000). The institution, which is a standing memorial of the practical piety of the early Refugees, provides a peaceful asylum for poor and aged descendants of the French Protestants. In the month of June, each year, the anniversary of the Hospital is celebrated by a gathering of the Directors, their friends, and many representatives of the old Huguenot families. The proceedings commence with a short service and sermon (in French) in the chapel. The Hospital and grounds are then inspected by the visitors, who afterwards partake of a cold collation, at which many an old memory is revived and many a happy contrast suggested between the intolerance in matters of Faith, which characterized the sixteenth and seventeenth centuries, and the religious freedom enjoyed at the present day.

# The Grey Collection of the South Ifrican Public Library. To the Editor of the Cape Monthly Magazine.

SIR,—Some months ago, I took occasion to explain the relation of the Trustees of the Grey Collection to the Committee of Management of the South African Public Library; but it appears that there is still some misapprehension, not only of the functions of the Trustees of the Grey Collection, but also of the relation previously explained. It is also certain that the actual constitution of the Board of Trustees is a matter which has been so obscured by irregular proceedings that it is time to let in a ray of light.

The original eight Trustces appointed by Sir George Grey in his letter of 21st October, 1861, were the Honourable Mr. Justice Watermeyer.

the Honourable William Porter, Sir T. Maclear, the Honourable J. de Wet, Mr. John Fairbairn, Mr. Charles A. Fairbridge, Mr. Wm. Tasker Smith, and Mr. Wm. Hiddingh.

The provision made by Sir George Grey for filling up vacancies is, "that when any vacancy occurs, the remaining Trustees should from time

to time fill it up."

Accordingly on the decease of Mr. J. Fairbairn, the Trustees elected

Mr. C. D. Bell, to fill the vacaney.

On the 28th August, 1875, three of the Trustees, Sir T. Maclear, Mr. Fairbridge, and Mr. Hiddingh, on the assumption that they were the only remaining Trustees, proceeded to elect Dr. Dale, Rev. Dr. Cameron, Honourable Mr. Merriman, Mr. A. de Smidt, and Dr. Ebden, to fill the

vacaneies, as assumed.

There were in reality two vacancies, caused by the death of Judge Watermeyer, and Mr. de Wet; but as Mr. Porter, Mr. Tasker Smith, and Mr. C. D. Bell had not, and have not to this date, resigned their trusteeship, it is plain that the election of the five gentlemen abovenamed is altogether irregular; in equity, I presume, the two who were first elected, Drs. Dale and Cameron, might be entitled to fill the two vacancies; but the other Trustees, Messrs. Porter, Smith, and Bell, were not consulted even about the election of these two.

It is therefore safer to assume that the election was altogether invalid. The Trustees at this date are Sir T. Maelear, Mr. Porter, Mr. C. D.

Bell, Mr. W. T. Smith and Mr. W. Hiddingh.

It is on this account and to keep myself, as an officer of the Government, free from such complications as must arise, that I signified to Sir T. Maclear, the senior Trustee, my objection to hold the Trusteeship.

Allow me to add that the only functions of the Trustees, as explained

by Sir George Grey, are to see these conditions fulfilled, viz.:-

(1). That I may at any time remove from the Library, as long as I require them, any books or manuscripts for my own use.

(2). That I may give the like privilege to the occupants of any Institu-

tion which I may hereafter found in South Africa.

(3). That during my life-time all other persons shall be admitted under the rules and regulations of the Library to use the Books and Manuscripts in the Library; but that no person shall without my consent be permitted

to remove any of them from the Building.

This plain statement of facts may be the means of avoiding unpleasantness in the administration of the affairs of the South African Public Library, and of preparing the way for the appointment by the Committee of Management of a successor to Dr. Bleek, who was appointed Custodian by the Committee, and discharged the duties of that office without any reference whatever to the Grey Trustees.

> I am, Sir, Your obedient Servant,

#### LANGHAM DALE,

Member of the Committee of Management of the South African Public Library.

## To Music.

O Art divine! belov'd of every breast, To weary toiling hearts that bringest rest; In life's rough way a solace sweet to prove, To vanquish grief, and e'en to rival love.

Hail! Music! mighty kings hold far-spread sway, But at thy summons all mankind obey. Gold hath its slaves adoring at its shrine, But boasts no votaries half so fond as thine.

Glitters the gleaming goblet, glowing high With ruby wine—the path to misery. Prostrate before the Bacchanalian King His servile ranks their hard-wrung tribute bring.

Brave in defence of right, sons of the sword, Content in death to mark their blood outpour'd If o'er their bier their country's standard wave Victorious folds—"their glory is their grave."

Grief for the miser, for the drunkard, woe, Tears for the brave on war's red field laid low; But thou! sweet Music! Heav'n's reflex of joy, Should'st neither grief nor woe nor tears employ!

Kind ministering Angel! Thou hast sprung From life supernal; not from human tongue Thy beauty lept to birth. It sought our zone, An echo wandering from the Eternal Throne.

## My First Diamond.

In the early part of the year 1869, when reports of recent finds of priceless gems were rife, I started from one of the lower districts of the Eastern Province on a cattle-trading trip to the Umzimvooboo. or St. John's River. Not long freed from the trammels of school, my mind was filled with the possibility of emulating the heroes of Sinbad the Sailor, and longing for such an occurrence, became firmly convinced that a large diamond was awaiting me in some part of the, to me, unknown country which had to be journeyed through. It was certainly rather annoying not to know the exact locality, but that only added a zest to the search and caused an extra sharp lookout. In those days the colonial idea of a rough diamond was, to say the least, decidedly vague, and beyond small brilliants in jewellery, few of us had even seen one in any state whatever. But mentally I had decided everything; it was a pure white stone, octahedron in shape, emitting dazzling rays -- something that would supply the place of half-a-dozen gas jets by night with the moon shining on it, and cut glass through at all times. Another qualification it was to possess,that of being able to resist all attempts to break it, be the force supplied ever so great. People may smile at these apparently absurd ideas now, but at that time they were common, as a single instance within my own knowledge will illustrate. About seven years ago, when working on the Vaal River, a digger found a stone of fifty or sixty carats, but from its dull colour and irregular shape could not decide what it was. Having tried it on glass without effect, he at last picked up a heavy hammer and gave it a blow sufficiently powerful to have driven a pile in of one of the Cape jetties. As he proceeded to pick up what fragments could be found, his sole remark was, "There, I told you so; I knew it was not the real thing," and this opinion was maintained until an expert, on examining the splints, pronounced them portions of a diamond of considerable value.

Yet another case to exhibit how little was known. A few months subsequent to the incident just recorded, and after the Fields had been in full vigour for possibly a year, a boatman picked up an apparently water-worn pebble which was remarkable only for a milky colour, peculiar shape, and large, rusty-looking cracks on the surface. Giving it to a companion, it was by the latter offered for sale for sixpence, but no one could then be induced to purchase at the price. Passing through scores of hands as a curiosity, at last it became the property of some one prepared to brave ridicule, and he offered it to several buyers as a genuine treasure. At first laughed at, then thought an imposter, he finally fell in with a shrewd little foreigner who gave him sixty pounds for it. The profits of that diamond materially augmented

the colossal fortune now being enjoyed by the purchaser.

But to proceed with my story. The banks of the Fish, Keiskamma,

and Buffalo Rivers and intervening districts were all carefully searched as we travelled along, but the anticipated luck did not attend me. Arrived at the Kei River on the Komgha line, I spent hours in diving to the bottom and bringing up handfuls of mud and gravel, but it was of no use. In the neighbourhood of the Bashee, a night was spent in prowling about searching for the glistening rays, the source of which was to raise me at one great stride to affluence, but it was not there. The Umtata afforded no better success, and still believing in my destiny, I hurried on to the St. John's River. How I did grope along at all hours during the week's stay, and it was with a dispirited and dejected air the homeward journey was commenced. Fate was against me, and in the mild and rather monotonous occupation of driving cattle during the light, and preventing them from wandering away during the dark, I sought relief from my disappointment. But it was not successful as a recreation, and one night near the Umtata, after working myself into a condition very like any other mortal must feel who has met with a series of misfortunes all his life, and can hardly restrain himself from attempting to amputate his head after the culminating one, I took a walk just to work off the energy that seemed to call for exercise in the surgical line. Suddenly a dizziness came over me, my knees trembled, head reeled, and I could not proceed. There, straight in front of me it was, bright and shining, waiting to reward me for all my searching. Visions of England and life, the Continent, Falls of Niagara, Astley's Circus, Rome, Drury Lane Pantomime, the Boulevards, China, the Salt Mines of Russia, chased one another through my mind, but it was no use standing still. Hastily putting my ear to the ground to make sure no one was approaching to carry off the treasure, I advanced, looking neither to the right nor to the left, nor upwards, but simply on the ground in front. The bellowing of an ox caused a pause, the barking of a dog a sickening fear of deprivation, but every energy had to be concentrated. Slowly, step by step, I got nearer, and when within a few yards of my prize went on hands and knees, so as to insure not losing sight of it At last it was within reach and uttering a cry of joy, I made a bound forward to clutch it ---

Reader, can you imagine my feelings for the next few minutes? I hope so, because they baffle description, and even now, eight and a half years after, the recollection of that night affects my nervous temperament. The shock was too much for me—in fact, stunning! How long I might have remained in the helpless state then existing, it is difficult to say, but a crowd of Kafir men, women, children, and dogs suddenly surrounded me, shouting, yelping, and clutching hold of every available part, until I was dragged before a fire and examined. Then the whole secret of this undignified treatment of a British subject was revealed: the diamond—my diamond—was simply a small hole in the wall of a Kafir hut, near the ground, the bright fire inside being seen through it, and the sudden spring forward

had brought my head against the structure with such force as to alarm the inhabitants. An innocent look and a plentiful distribution of tobacco, made my peace with the natives, and from that time I have been a firm believer in what the Kimberley law now inculcates, that the diamond trade should only be carried on by day.

HEZEKIAH.

Kimberley.

# The Three Wishes.

T.

I would wish, the first one said,
'That in my last long sleep
My empty shell should rest beneath
The fountain of the deep,
And that my requiem—bold and free—
Be utter'd by the rolling sea.

#### II.

And I would wish, the next one said,
To rest on churchyard lea;
Where flow'rs grow wild and daisies spring
Beneath the hawthorn tree;
Where the sweet chime of parting day
Might waft the new-pledg'd soul away.

#### III.

But I would wish to rest amid
The noble and the brave;
That Fame might fling a laurel wreath
Upon my lowly grave:
And that my latest breath might be,
My country's shout of Victory.

# Metconology.

(FROM RETURNS FURNISHED BY THE COLONIAL METEOROLOGICAL COMMISSION).

1877. Month.	Barometer.	Mean Temp.	Mean Max.	Mean Min.	Max. of Month.	On what days.		Min. of Month.	On what days.	Rain-fall.	Number of days on which rain fell.	Mean Humidity, complete Satura- tion equals 100.
				RC	YAL C	BSERVA	FOR	Υ.				
anuary Cebruary March	inches. 29.803 29.965 29.956	69.0 67.5 67.9	82.1 81.7 71.9	59.7 57.7 58.4	0 104.7 92.1 107.3	17th		0 51.1 48.0	4th	inche . 0.72 . 1.61	6 4	70 72 74
					W	YNBERG						
anuary February March	inches. 29.719 29.704 29.705	70°1 65°8 67.7	0 82:4 80:5 82:6	0 60.0 58.5 58.7	0 94.3 0	29th 28th 18th	::	0 51.0 53.0	6th4th&25	inche . 0°28 h 1°58	80 3 80 7	69 76 77
					SIMO	N'S TOV	VN.					
anuary February	inches.	0 71.6 69.9	0 82.4 84.1	66.6 64.8	91.2 98.0	23rd & 29 27th	oth	60.0 58.0			es.	69 68
					PORT	ELIZABE	TH.					
January February	inches. 30.051 30.005	0 70°2 69°8	78°0 76°8	63·9 62·7	86°0 85°0	30th 2nd	::	56.2		inch 0.9	10 3	75 74
		!			W	ELLINGT	on.					
January February March	inches. 28°590 28°607 28°584	73·3 69·0 70·5	86·5 80·8 82·8	61.0 59.4	99.0	20th 8th 15th	::	50°3 53°0 51°2	2nd 2oth 23rd	inch 0.1 1.2 0.5	10 I	69
					W	ORCEST	ER.					
February March	inches. 29.186 29.198	0 70°1 0	86.4 83.1	55°4 58°8	05.0 0	9th 18th	::	47.0	4th 28th		920 :	62 65
				ΚI	NG W	LLIAM'S	TO	WN.				
January February March	inches. 28.197 28.155 28.163	68·1 67·7 68·7	81.4 81.4 81.4	51.6 52.8 55.0	96.0	30th 24th 31st		43°0 39°0. 45°0	3rd and 6th	2.	ies, 260 1. 120 1:	77

1877. Month.	Barometer,	Mean Temp.	Mean Max.	Mean Min.	Max. of Month.	On what days.	Min. of Month.	On what days.		Rain-fall.	Number of days on which rain fell.	Mean Humidity, complete Satura- tion equals 100,
					SOME	ERSET EAST						
January February March	inches. 27.464 27.403 27.394	69°0	81.1 80.1 80.1	62.8 62.0 62.4	91.0 90.0 90.0	30th 10th & 14th 25th	24.0 23.0 20.0	2nd 3rd 3oth	::	inches. 0.820 1.170 2.710	7 6 9	69 70 75
					ALIW	AL NORTH						
January February March	inches. 25.644 25.651 25.723	69.7 68.6 66.9	0 91.4 88.2 88.7	57.9 58.3 56.2	96.0	18th 15th 26th	0 46.0 47.0 50.0	4th 3rd 6th		inches. 2.690 2.850 2.830	6 13 7	59 63 72
					CLA	NWILLIAM	•					
January February March	inches.	79.8 74.0 75.3	0 95.6 95.6	56.9 54.4 0	0 110,5	29th 9th	6.3 43.2 47.5	2nd 26th 10th	::	inches. 0.100 0.430	3	48 57 53
					CA	RNARVON.			_			_
January February March	inches. 25.898 25.885 25.918	75.6 72.7 72.9	89.8 86.6 86.2	60·7 59·5	94.2 94.0 96.0	20th 14th 17th	48.0	2nd 3rd 10th	::	inches. 0°145 1°990 0°080	2 3 3	33 40 40
					POR	T NOLLOTH	Ι.					
January February	Inches. 30.024 30.027	60.6 59.8	76.0 75.7	54°2 52°8	82.0 82.0	30th	47.0	7th 26th	::	inches.		84 87
	inches.	0		0	0	MBERLEY,	1 0			inches.		
January	26.054	78.6	97'9	60.4	107.0	15th	52.0	6th	٠.	0.740	4	47

The Barometer readings are reduced to the Tempetature 32° Farheinheit; but no correction has been applied for height above sea level, except for Port Elizabeth; in this case a correction of 0°180 has been applied throughout.

The Barometer at Kimberley is an ancroid.

\* There is no Rain-gauge at Port Nolloth.

#### THE CAPE

# MONTHLY MAGAZINE.

Science, in its relations to Poetry. By the Rev. H. M. Foot, LL.B.

Contrariorum oppositione sæculi pulchritudo componitur. - A UGUSTINE.

"THERE is a quarrel of long standing between philosophy and poetry." More than two thousand years have passed since Plato put these words into the mouth of Socrates. The antithesis between science and poetry of our modern Plato, Coleridge, is. therefore, no new thing. Here as elsewhere the combatants of to-day are only carrying on the old conflict. The weapons of warfare may change; but, from the age of flint hatchets to the era of torpedoes, the struggle for existence is essentially the same, and the diverging powers of the mind determine the condition and the progress of humanity, as truly as the polar forces of nature regulate the constitution and the process of the suns. There is poetic irony in the fact that the modern scientist excludes the philosopher from his domain, for reasons analogous to those which prompted Plato to banish the bards from his Republic. The great idealist is himself too much of a poet for the New Republic. His judgment recoils upon himself; and he is driven forth to join the exiles, because "he resembles them in producing things which are worthless when tried by the standard of truth." But time has other revenges; "exiled is not lost." Plato, in carrying out his sentence, does so with emotions akin to those of the angel of the burning sword, who led forth our lingering parents to the thorns and thistles of the world. He regrets their banishment, but he has a glad prevision of their ultimate return.
"Let us admit," he says, "that if poetry and imitation . . . can give any reasons to show that they ought to exist in a well-constituted state, we for our part will gladly welcome them home again. For we are conscious of being enchanted by such poetry ourselves; though it would be a sin to betray what seems to us the cause of truth." With like feelings does the man of science, who has not forgotter that he is a man, see Plato and his followers depart, until he also dreams his dream of a City of God which shall be the home of us all, where each factor of our complex humanity shall find its office and

<sup>\*</sup> Address delivered as one of the course of University Lectures at the Public Library.

reward in ministering to the rest, and our complementary powers shall constitute one harmonious whole.

Is the relation of science to poetry a relation of contrast only? What has been their reciprocal influence? Is their ultimate harmony possible? The Antithesis; the Mesothesis; the Synthesis: these are the questions to which I invite your attention.

#### I. THE ANTITHESIS.

Is the relation of science to poetry a relation of contrast only? The general verdict is affirmative. Never perhaps in the history of the human race has the alleged antagonism been so pronounced as during the last hundred years. Time was, we are told, when the poet was the creator, the seer, the legislator; when his song could move the stones, and charm the trees, and tame the beasts of the field; when his voice could recall the dead from the gloomy shadows of the underworld, bring down the gods from Olympus, and raise men to the seats of the immortals. But the scene is changed. The world has grown older and wiser, not to say more cynical and sad; and the bright visions of its youth fade into the light of common day. Miracles have ceased; wonders are on the decline; the age of chivalry, romance, and poetry, is gone. Even the poets, it is maintained, confess it. Great Pan is dead. Schiller has chanted the requiem of the gods of Greece; Alfred de Musset has sung a dirge at the grave of Christendom. Mythology is a disease of language, and poetry is religion in decay. Christianity itself only lingers as an after-glow, in the pages of Dante and Milton. Lamartine says that when he first felt the poetic fire, the time-spirit shrieked out against him: "Love, religion, enthusiasm, liberty, poetry! Fudge! Calculation and force; the cipher and the sabre: these are the things! We only believe what we can prove; we only feel what we can touch: poetry is dead with the spiritualism which gave it birth." How many of the tendencies of contemporary life and thought seem to join in the protest; each, after its fashion, driving home a nail in the coffin of idealism. The essentially prosaic necessities of industry; the eager pursuit of material wealth; the idolatry of secular success; the levelling influence of utilitarianism as applied to politics, and its lowering effect as the standard of morals; the nugatory character of metaphysics; the follies and the vices of the spiritualists; the swamping of the individual by the mass; the subjection of heroic personality to the inevitable spirit of the age; the triumph of the experimental method; the supremacy of natural law: all these conditions and processes, whether good or bad, scientific or unscientific, are confessedly unpoetic,

> Do not all charms fly, At the mere touch of cold philosophy?

"The count of mighty poets is made up." "Glory and loveliness have passed away." Now that we can brew clouds in a boiler, and

shut up lightning in a jar, and manufacture rainbows with a fragment of glass, and make the blue of the sky in a test-tube, and concoct protoplasm in a retort, as we are perpetually on the point of doing, what more do you want? "Ay! there's the rub," replies the poet:

> What do you want? That is the question still; The ages pass, the riddle still remains; The Sphinx with piercing eyes awaits reply. You know the earth is round, compute the hour, And travel through the heavens at compass-point; But what we want! Ab, that you do not know.

Even Mr. Tennyson almost loses his philosophic calm, when he is assured that thought is a motion of matter, and that man is a development of the primordial germ. He sings:

I think we are not wholly brain,
Magnetic mockeries;
Not only cunning casts in clay:
Let science prove we are, and then
What matters science unto men,
At least to me? I would not stay.

So does the exiled poet revenge himself. Coriolanus, banished from Rome, banishes Rome in turn, and the schism becomes complete.

It may be worth while then to inquire,—What are the principles of this antagonism, in which humanity appears divided against itself?

The formula which sums up the general relations of science and art, in their most comprehensive sense, may be imperfectly expressed in English, as vision, prevision, provision; i.e., we know in order to foresee, and foresee in order to act. All the arts therefore have a scientific basis; science is the intellectual condition of art, art is the practical application of science. Our business at present, however, is not with art in this generic sense, but with what is known as fine art, and especially with the supreme fine art, poetry. Now, though praiseworthy efforts have been made of late to establish a science of æsthetics, or a logic of the fine arts, those who have been most successful in the analysis of the causes of æsthetic pleasure are the first to acknowledge that the canons of their science can no more produce a "Hamlet" or a "Transfiguration," than the rules of the syllogism could evolve "The Leviathan" or "The Principia." It is one thing to investigate the laws of beauty, another to create it. In order, therefore, to estimate the true relations of science and fine art, it will be necessary to regard them as coordinate and complementary powers, each with a basis, an aim, and a method of its own. Here another familiar triad serves as a simple and suggestive formula. The three great functions of humanity are to do the good, to discover the true, to realize the beautiful. Virtue is the aim of the moralist; truth is the goal of the scientist; beauty is the end of the artist. It would be gratifying, if, before concluding our investigation, we could determine how far these three agree in one; but our present duty is to see as clearly as possible the differences involved in the two processes of discovering truth and creating beauty. Truth for its own sake is the motto of the man of science; beauty for its own sake is the motto of the poet. And here let it be distinctly borne in mind that one of the greatest libels against poetry, is the popular interpretation of the old maxim that the end of poetry is pleasure. This is only true in that philosophic sense in which the end of every human desire and effort is pleasure. But the specific aim of the poet is beauty, just as the specific aim of the man of science is truth. That beauty is an eternal joy, is the good fortune of the poet; that truth is sometimes unpalatable, is the temporary sorrow of us all; still the "Eureka!" of the man of science brings a rapture, no less than the "Feci!" of the poet: while the poet who seeks pleasure at the expense of beauty, errs as fatally as the scientist who seeks pleasure at the expense of truth. Whether "truest truth" may not turn out in the end to be "fairest beauty," and vice versa, we are not yet in a position to decide; but so far it is clear, that the man of science must be true to his mistress, though all the world declare her ugly; the poet must be true to his

mistress, though all the world pronounce her false.

The methods of science and poetry are equally distinct. Science is the slowly precipitated residuum of reasoning, poetry is the vigorous offspring of the imagination; science moves cautiously in the cold dry light, which, as regards feeling, is a vacuum, poetry wings its way amid the rainbow tints of the light that never was on sea or shore, and in an atmosphere highly charged with emotion; science looks with the eye, poetry looks through the eye, with the vision and the faculty divine; science explores, step by step, every department of the realm of law, poetry is a law unto itself, and wanders at its own sweet will or gains its goal at a bound; science strives to understand phenomena in their relation to each other, poetry views everything in its relation to humanity; criticism, which is science applied to literature, writes the history even of the "Origins of Christianity," as though it were writing for an uninhabited planet, poetry regards the most distant star as having a meaning and message for all spiritual beings; the man of science analyses the complex, the poet brings all into synthesis with himself; the man of science strips off the veil of circumstance to get at the bare sequence or co-existence, the poet gives concrete form and clothing to the abstract and the intangible, yea even to airy nothing a local habitation and a name; science is content to examine the temporary "How?" poetry essays to answer the eternal "Why?" science dissects the body, poetry breathes into the dust the breath of life; science is the rigid logic of facts, poetry is the articulate music of feeling; science is observation and experiment, poetry is inspiration and aspiration; science is inference and demonstration, poetry is intuition and revelation; science explains the mechanism of nature, poe-

try has fellowship with the spirit of the universe. weighty words of Bacon, who, like Plato, was both poet and philosopher, "Poesy was ever thought to have some participation in divineness, because it doth raise and erect the mind, by submitting the shows of things to the desires of the mind; whereas reason doth buckle and bow the mind to the nature of things." Bacon here sides with the universal verdict of language and of all who have loved the Muses from the beginning until now, that the essence of poetry consists, not as the Schools have tried in vain to persuade themselves, in imitation, but in creation; and that the poet is not a mimic, but a maker. A heavier charge, however, might seem to be implied in his distinction, viz., that poetry only deals with the shows, while reason deals with the nature of things. A similar indictment has been drawn up from the saying of Wordsworth, that "the appropriate business of poetry (which nevertheless, if genuine, is as permanent as pure science), her appropriate employment, her privilege and her duty, is to treat of things not as they are, but as they appear; not as they exist in themselves, but as they seem to exist to the senses and to the passions." By ignoring the qualifying parenthesis, people run away with the notion that poetry deals only with figments and follies. As if an earnest man like Wordsworth would consecrate his whole life to poetry, if he did not know that the world of feeling has its truths, and that mind is as real as matter. Why, the universal confession and boast of contemporary science is that it only deals with phenomena, i.e., the shows of things, and knows nothing of primary causes and noumena, i.e., things in themselves. Be it so! If poetry takes the liberty of dealing with these phenomena in her own imperial fashion, she gives them at least an ideal basis; and the feelings with which she associates them are the most stubborn facts of the universe; they are in truth the only proof we have that any universe exists. All your scientific induction and verification can not prove to me the reality of the external world, and the uniformity of nature, with the same cogency as my very feelings prove their own reality and mine. Let science demonstrate, if it can, that there is no matter, and no mind. Never mind, no matter! Man's feelings are their own witness; they are real, if nothing else; and while they exist, poetry and some other things of even greater moment will not die. What though the boasted sword of reality pierce through the spirit's ethereal substance; it touches no spring of life, and leaves no wound; while often, the Ithuriel spear of the idealist is laid but lightly on the body of reputed fact,-the spell is broken, and there stands revealed the father of lies himself! "There is not," says Cowley, "so great a lie to be found in any Poet, as the vulgar conceit of men, that lying is essential to

All these differences of nature, aim, and method, admit of endless illustration. How diversely do science and art respond to the invitation "Consider the lilies of the field." Call to mind the technical botanic description of a flower, in which its exact position in the vegetable kingdom is defined; and then think of all the human

relations and suggestions of Chaucer's "Dayeseye," and Burns's "Wee, modest, crimson-tipped flower;" of Herrick's "Daffodils," and Wordsworth's "Celandine." The skylark and the nightingale are common-place birds in the treatise of the ornithologist; the poet listens to their music, and sings, as he has never sung before, the psalm of life, with all its joys and sorrows, its aspiration, regret, and love. Sometimes the contrast comes out in common experience, and the mingling of the so-called ideal and real gives birth to the ludicrous. Hood frequently takes advantage of this fact, as in the "Parental Ode":—

Play on, play on,
My elfn John,
Toss the light ball, bestride the stick.
(I knew so many cakes would make him sick!)
Thou pretty opening rose!
(Go to your mother, child, and wipe your nose!)
Balmy and breathing music like the South,
(He really brings my heart into my mouth).
Bold as the hawk, yet gentle as the dove,—
(I tell you what, my love,

I cannot write unless he's sent above).

Take one more illustration, in a higher mood. We ask the poets for their conception of life, and Keats replies:—

Life is but a day;
A fragile dewdrop on its perilous way
From a tree's summit; a poor Indian's sleep
While his boat hastens to the monstrous steep
Of Montmorenci. Why so sad a moan?
Life is the rose's hope as yet unblown;
The reading of an ever-changing tale;
The light uplifting of a maiden's veil;
A pigeon tumbling in clear summer air;
A laughing schoolboy, without grief or care,
Riding the springy branches of an elm.

And Shelley, weeping for Adonais:-

Life, like a dome of many-colour'd glass, Stains the white radiance of eternity, Until death tramples it to fragments.—Die, If thou would'st be with that which thou dost seek!

And Tennyson:-

Life is not as idle ore,
But iron dug from central gloom,
And heated hot with burning tears,
And bathed in baths of hissing tears,
And batter'd with the shocks of doom
To shape and use.

And Shakspeare, in the frenzy of Macbeth:-

Out, out, brief candle! Life's but a walking shadow; a poor player, That struts and frets his hour upon the stage, And then is heard no more. It is a tale Told by an idiot, full of sound and fury, Signifying nothing. Or, in the conflict of Hamlet's, "To be or not to be:" or, in the musing of Prospero:—

We are such stuff
As dreams are made on, and our little life
Is rounded with a sleep.

We turn from these few of the myriad forms in which the poets hint the meaning or the mystery of life, and ask the men of science what they think of life, and Mr. Herbert Spencer speaks on their behalf:-" Life is the definite combination of heterogeneous changes, both simultaneous and successive, in correspondence with external co-existencies and sequences: " or, more summarily,-" Life is the continuous adjustment of internal relations to external relations." Could any contrast be more complete? Yet, it must not be forgotten that the terminology of science is as pregnant with meaning as the metaphors of poetry. As Professor Bain points out, the scientific man has not wantonly created his technical jargon; "he was forced into these repulsive elements, because in no other way could he seize the realities of nature with precision." We may add that Mr. Spencer's gradual evolution of his definition of life, whether satisfactory or not, is one of the most beautiful modern examples of scientific method. The conclusion seems bald and colourless enough; but it is difficult to follow the clear and harmonious trains of reason ing which precede, without æsthetic pleasure. There is no appeal to the passions, but the emotions of the intellect are roused into most agreeable activity. Whether, therefore, the poet find truth in the pursuit of beauty, or the man of science unveil beauty in the search for truth, wisdom is justified of her children.

The broad distinctions which we have considered, however, go far to excuse if not to justify the passionate protest of Mr. Swinburne in his "Essay on Blake":-- "Admit all the pretensions of art, they remain simply nothing to science; accept all the deductions of science, they simply signify nothing to art. The eternal 'Après?, is answer enough for both in turn. 'True then, if you will have it; but what have we to do with your good or bad poetries and paintings?' 'Undeniably; but what are we to gain by your deductions and discoveries, right or wrong?' The betrothal of science and art were a thing harder to bring about and more profitless than 'The marriage of heaven and hell.'" We contend as earnestly as himself that neither need wish to destroy the other, and that they must go on their separate ways; but we question the accuracy of his statement, that "in this life their ways can by no possibility cross." With this deliverance of a representative contemporary artist, let us compare the opinion of a leading, living man of science. In his Lectures on Light, Prof. Tyndall discourses eloquently on the sun, as the great source of terrestrial energy:-" He lifts the rivers and the glaciers up the mountains; and thus the cataract and the avalanche start with an energy derived immediately from him. Thunder and lightning are also his transcendent strength. Every fire that burns, and every flame that glows, dispenses light and heat which originally belonged to the sun. In these days, unhappily, the news of battle is familiar to us; but every shock and every charge is an application or misapplication of the mechanical force of the sun. He blows the trumpet, he urges the projectile, he bursts the bomb. And remember, this is not poetry but rigid mechanical truth." So far then the artist and the scientific man apparently agree. But note that in the very next paragraph, Prof. Tyndall says: "Presented rightly to the mind, the discoveries and generalizations of modern science constitute a poem more sublime than has ever yet been addressed to the intellectual imagination of man. The natural philosopher of to-day dwells amid conceptions which beggar those of Here are riddles, let us hope "here be truths." This is not poetry, but rigid mechanical truth; nevertheless, rigidly mechanical truth, rightly presented, casts "Paradise Lost" into the shade. There is then beauty after all in "the fairy tales of science and the long result of Time." The fact is that our foremost scientific men are amongst the keenest admirers of poetry; and they betray occasionally a nervous anxiety to demonstrate that there is a touch of beauty in their special work. Some of them unconsciously, a few even reluctantly, are led captive of poesy, and find in the universe "the Eternal Mind's poetick thought," until they give a faint echo of a music purer, richer, more melodious than their own :-

> Truth is fair: should we forego it, Can we sigh right for a wrong? God himself is the best Poet, And the Real is His song. Sing His truth out fair and full, And secure His beautiful. Let Pan be dead.

### II. THE MESOTHESIS.

Our investigation of the antithesis between science and poetry has now brought us face to face with the second question,—What

has been their reciprocal influence?

The strange alliance against which Mr. Swinburne so vehemently protests has been repeatedly attempted. At first glance, the result confirms the wisdom of his indignant prohibition of the banns. Such bridals, it seems, are neither sanctioned by Heaven nor approved of men; and their issue belong for the most part to the monstrum horrendum class. Have not the figments of poetry and metaphysics been the bane of science, from the days of Thales until now? Did not the old ideal postulates, that the heavens are incorruptible, and that the motion of the planets must be circular because the circle is the perfect figure, retard for centuries the progress of astronomy? Did not the maxim that nature abhors a vacuum prove equally disastrous for physics? Does not the poetic egoism which assigns such undue importance to man and to this little spec of dust on

which he lives and dies, obstruct even now the triumph of a rational conception of the universe? On the other hand, when science has been made the subject of song, have not the Muses taken wing? True, there is the apparent exception of Lucretius, who has furnished a text-book in verse for the scientific world. It would not, however, be difficult to show that his terse and glowing rhetoric has other than poetic charms for ardent admirers—pleasures quite distinct from sipping "Heliconian honey in living words," or being

fancy-borne upon the rise And long roll of the Hexameter.

The beauties of his poem are independent of its scientific worth; for the most part, when his verses are scientific, they are not poetic; when they are poetic, they are not scientific. A similar criticism tells with crushing force against most of his imitators. We have no such famous example in our own literature. Most of those who have reproduced the poem of Lucretius in English numbers have. like Dr. Busby, the hero of the "Architectural Atoms," attempted the sublime and achieved the ridiculous. Many would-be bards have laboured, on their own account, to wed science to immortal verse, but their works are scarcely known save to the literary palæontologist. We can only glance at a few leading names, omitting all notice of philosophical, as distinct from scientific, poetry. John Lyly was, perhaps, the first English writer of note who attempted to utilize systematically, for the purposes of art, the science of his time. But as he was more anxious to appropriate the fantastic than the beautiful and the true, he only succeeded in founding that school of Euphuism in which scientific fable was mingled with classic pedantry. George Chapman also occasionally brought science on the stage, in the same way that George Eliot introduces it in the novel; a simile of Chapman's, it has been said, reads like the versification of an illustration from "Middlemarch." Butler only notices science for the purpose, of burlesque. Cowley wrote an "Ode to the Royal Society," for he recognized the dignity and worth of science, and had many glimpses of poetic beauty in its discoveries. Unfortunately, his scientific tropes are too frequently frigid and far-fetched conceits, embedded, like flies in amber or in ointment, to the utter confusion of "the language of his heart," which Pope professed to love, but which is almost as rare in the poems of Cowley as in those of Pope himself. Pope's philosophy is neither good science nor good poetry; though he has, undoubtedly, embodied in immortal couplets the æsthetic aspects of some scientific truths. But it was reserved for Erasmus Darwin to reduce English scientific poetry ad absurdum. His poems, falsely so called, have many of the merits and vices of the artificial school of Pope, together with other merits and vices which it were long to tell. Suffice it to say that in his incongruous jumbling of the conventional classic mythology and of fairy puppets of his own, with a heterogeneous compilation of all the scientific observations and theories of his generation, we have the most unreadable mass of brilliant and ingenious verse ever presented to the British public -- a conglomerate unrivalled since the primeval period when pudding-stone was formed. His tactual precision qualified him as a man of science, and his vision was keen enough for a poet; but his touch availed nothing with the spirit which says,—Noli me tangere, and, as Mrs. Browning puts it,—"he mistook the optic nerve for the poetic sense." "The Loves of the Plants" are as tender as "The Loves of the Triangles:—

Let Hydrostatics, simpering as they go, Lead the light Naiads on fantastic toe; Let shrill Acoustics tune the tiny lyre; With Euclid sage fair Algebra conspire; The obedient pulley strong Mechanics ply; And wanton Optics roll the melting eye.

These forced and artificial unions have, as a rule, ended unhappily; but it does not therefore follow that science and poetry have had no other reciprocal influence. Sensation and perception are distinct; they are often in inverse ratio; but sensation is the basis of perception, and the intensity of the one will often determine the clearness of the other. So with reason and imagination. In the moment of exercise they may interfere with each other, and even be mutually exclusive; but the reason perpetually furnishes new factors for the use of the imagination. It provides new raw material, so to speak, as fast as the old becomes conventional or effete. Were it true that "whenever anything has been perfectly reduced to matter of science, its poetical character is extinguished"; the advance of science makes us conscious of new mysteries while it explains the old, and increases the circumference of darkness by expanding the circle of light. triumph of reason thus opens up for the imagination more avenues than it closes. In harmony with this we see that the great poets have generally been up to the intellectual level of their time. Poetry, however universal in its character, inevitably bears the impress of the mental conditions of the age in which it is produced; and our contemporary poetry is no exception; it proves that the scientific spirit is in the air. Without maintaining that human development has gone on, from an era when "everything was divine except God himself," up to the positive stage in which law is inviolable and man is supreme; it must be owned that the simultaneous spread monotheism and of science has clothed with a fanciful and secondary artistic interest much that was once regarded as reality and full of interest for its own sake. A few scientific truths have revolutionized some of the departments of human thought. It is enough to mention the heliocentric system of Copernicus, by which the old conception of the relative importance of the earth is modified; Newton's law of gravitation, by which the method of molar motion throughout the universe is explained; Dalton's laws of chemical combination, by which molecular motion is proved to be equally constant; the

transmutation of energy, by which the forces of the universe are reduced to unity; and spectrum analysis, by which the identity of its material elements in the most distant stellar regions is being proved. We need not include theories as to the antiquity of man and the variation of species, to prove that science has taught us to look on nature with different eyes, and has transferred many of our mental processes to different planes. Yet many of the facts revealed by science have an inherent beauty, which makes them as much the lawful prize of the poet, as the deeds of heroes or the splendours of the setting sun. Others have a beauty of relation, which the poet cannot miss; and when any of them can be brought into intimate and vital relation with humanity, they have entered the dominion of the Muse. The telescope, the microscope, the spectroscope, these words are not poetic; but they call up before the imagination facts and relations which are full of suggestive beauty; they tell of the infinite, of the infinitesimal, and of the harmony of the two; of the vastness, the minuteness, and the unity of the material universe. And when we realize that the grain of dust we tread beneath our feet is part of the Open Secret, as truly as the ethereal expanse around us, with its countless suns; when the minute constituent atoms of our earth are proved to preserve their ordered places, as truly as the planets in their orbits or the stars in their courses; we begin to feel that there is more poetry in the harmony of nature than in its supposed caprice, and that the wonder which is the offspring of ignorance is transformed into the wonder which is the parent of adoration:--

> We see a world in a grain of sand, And heaven in a wild flower; Hold infinity in the palm of the hand, And eternity in an hour.

"Everything is beautiful in its season,"-its appropriate time and place; but the æsthetic pleasures of relation, of which science is so prolific, can only be very sparingly utilized by the poet, because they appeal to a class rather than to humanity; and poetry, to win its way and do its work, must speak to mankind. Ordinary men are apt to smile when a mathematician goes into raptures over the beauty of a demonstration, or a naturalist dances with delight around a beetle which supplies the missing link. Oken, the celebrated physiologist, sings this Song of the Snail: "Gazing upon a snail, one believes that he finds the prophesying goddess sitting upon the tripod. What majesty is in a creeping snail, what reflection, what earnestness, what timidity, and yet at the same time what firm confidence! snail is an exalted symbol of mind slumbering deeply within itself." The world in charity accounts the man insane, and attributes his madness, neither to science nor to poetry, but to metaphysics. The medical student, who discovered beauty in a compound fracture; the lawyer, who derived æsthetic pleasure from an action for assault and battery, "were

mellow music matched with him." Few men ever had a more intense delight in, and profound reverence for every creature of God, than Charles Kingsley; but he could never altogether conquer an instinctive repugnance to the spider. It requires imagination of no mean order, as well as special training, to call up and realize the meaning and relation of things commonly despised or neglected. Yet a piece of chalk or coal is fossil poetry in the hands of Professor Huxley; and the lobster, with its skeleton outside, becomes a natural comedy. To Huber, the bee is an idyl; to Sir John Lubbock, the ant is an epigram; while to Mr. Darwin, the struggle for existence is the great world-tragedy, and the survival of the fittest its moral. Any student of science may experience æsthetic pleasure in noting the delicate gradations, the subtle links, the likeness without uniformity, the unity in variety, which prevail everywhere in nature; in tracing the rhythm in the mutual dependence of the animal and vegetable kingdoms, the wondrous systole and diastole of the organized world; in marking the homologies or structure, by which the petal of the flower is known to be a developed leaf, and the leaf to be a microcosm of the plant, or which show that the hand of a man, the leg of the horse, the claw of the mole, the wing of the bat, the paddle of the porpoise, are all constructed on the same pattern; in finding that all the varied hues of earth and sky are due to the analysis of the white light of the sun; in learning that all the sweet harmonies and melodies which delight the ear have their natural foundation in the sympathetic "clang" of musical tones; and in following the protean modes of energy, as gravitation produces motion, motion becomes heat, light, electricity, chemical action, - and all these play their part in the physical basis of life. Is it any wonder that science and poetry should sometimes address each other in the words of Shelley's song?

Nothing in this world is single;
All things by a law divine,
In one another's being mingle,—
Why not I with thine?

But many of these relations are too cumbrous, not to say grotesque, and as yet too recondite and remote from human interest, for free poetic use. Oliver Wendel Holmes has done perhaps as much as any living poet to introduce them to the service of song. Tennyson, Browning, and George Eliot, recall them for the initiated, often with wondrous power and beauty; but, for the multitude, their scientific hints are lost and their metaphors obscure. Browning's encyclopædic lore is a stumbling-block even to his admirers. Until scientific culture is mere general and thorough, these intellectual pleasures are only for the few. Where the few recognize beauty the many will only perceive a blemish or a blank; and the technical basis of these charms of relation will always place them at disadvantage for the purposes of poetry, which must speak a universal language and appeal to the universal heart. At the same time there

is no region of thought or feeling from which the poet should be excluded. It is his to flash the light of genius on the remote and the obscure, to unveil hidden beauty to the eye of the world, to make the wisdom of the wise "familiar in our mouths as household words." When he can do this, he has justified his art and won his crown. And the humblest of us may sometimes find a poetic flower where we least expected it; in some secluded nook, perchance, of the by-way of our life. Possibly we cannot make it known to the world; probably, if it be worth knowing, the wise world is already familiar with it. But some of our friends may be no wiser than ourselves, and we may show it to them. Pardon an example from personal experience. I fear I have forgotten some of my mathematics; but I shall never forget the thrill of delight with which, as a novice, I first contemplated the sections of the cone imperceptibly merging into each other,—the circle into the ellipse, the ellipse into the parabola, the parabola into the hyperbola, and all of them held in unity by the golden chain of a simple equation. Here, in the region of pure mathematics, I found all the constituents of a perfect intellectual poem, rich with æsthetic pleasure. But lacking in human interest you will say. This, however, was not long wanting, for I soon lighted on a passage in Comte, which dwelt on the striking fact that the beautiful speculations of the Greek geometricians on the sections of the cone have assisted, after many generations, in effecting the renovation of astronomy, and in perfecting the art of navigation, results which could never have been achieved without the purely theoretical studies of Archimedes and Apollonius: so that, in the words of Condorcet, -" The sailor, whom an exact observation of longitude preserves from shipwreck, owes his life to a theory conceived two thousand years ago, by men of genius who only had in view some simple geometrical speculations," The poem was now complete. An abstract study, by its intrinsic beauty, fascinating alike the ripe old sage and the raw young student, after two milleniums of supposed inutility, becomes a key for the contemplative astronomer in the sublimest of the sciences, and for the adventurous navigator in one of the most practical of arts; the calm pursuit of truth, ending alike in use and beauty, bridging the gulfs of time and space, and making the whole world kin,-here, surely, was a sweet lyric in thelong drama of human history. If "there is some soul of goodness in things evil," verily there is a spirit of poetry which may be found everywhere.

Perhaps the most important evidence of the intimate relation between science and art, is found in that modern æsthetic realism, which is popularly associated with pre-Raphaelitism in painting, and pre-Drydenism in poetry. It is becoming a current maxim that nature is the standard and truth the end of the artist, "the definition of science being appropriated as the definition of art." According to the father of experimental philosophy, the scientific man is the interpreter of nature; and this is the name assigned to the poet by

one of the sweetest singers of our century. If "art is called art because it is not nature," ---

Ev'n the art Which you say adds to nature, is an art Which nature makes.

Side by side with the growth of exact scientific observation, there has gone on a reaction in favour of realistic art, and especially of accurate delineation of nature in poetry. How far these tendencies are due to common causes, how far to each other, we cannot pause to discuss; this is a more complex question than that involved in the simultaneous Revival of learning and art; but the facts are obvious. The scientific man cannot dispense with the imagination; the artist must not violate clear principles of reason. The reach of thought, by which Newton associated the motion of a falling apple with the revolution of the planets, or Franklin the electric spark with the lightning-flash, was the result of imaginative power, of a kind, as truly as the sublime associations of the poet; the poet's vision and revelation of nature, and his solution of her secrets, are as true, in their kind, as those of the scientific investigator. Wordsworth observed nature as patiently and as accurately as Mr. Darwin himself in his long life-work of tracing the mutual adaptations of the human mind and the external world. Notice the delicate and accurate painting of the following little picture, all suffused with the tender light and heat which flow only from the human heart:

So fair, so sweet, withal so sensitive:—
Would that the little flowers were born to live,
Conscious of half the pleasure which they give:
That to this mountain daisy's self were known
The beauty of its star-shaped shadow thrown
On the smooth surface of this naked stone.

The poet who can read nature thus may be allowed his bold hyperbole:

One impulse from a vernal wood May teach you more of man, Of moral evil and of good, Than all the sages can.

The beauties of the old mythology, rightly interpreted, and the beauties of modern poetry, are derived in the main from one source,—nature. There is a difference in treatment, due to the difference in the intellectual atmosphere caused in part by science, but the fount of inspiration is the same perennial spring. Again, there are poems by Browning and Tennyson, as exact, in their order, as the propositions of Euclid, and their power arises largely from their consistency, their verisimilitude, their truthfulness. Here once more the difference lies in the broad principle that science is nature minus humanity, poetry is nature plus humanity. The artist who forgets this, and tries to paint things as they are, paints them as neither he nor anyone else ever saw them; but the poet, who describes nature as she is re-

vealed to his senses and to his heart, unfolds her meaning to the world. Some of the portraitures even of such supreme realistic artists as Thackeray and George Eliot suggest the kind of accuracy which is more congenial to science than to art, and they naturally find a place in prose fiction rather than in poetry. Kaats himself has been charged with looking at the fields sometimes, with the florist's rather than the artist's eye; as Whitbread was accused by Sheridan of describing the phænix, like a poulterer instead of like a poet. Both the man of science and the artist should find truth in nature, but their truths will be as different as their methods. The truth-seeking artist may be satisfied with the mature judgment of one of our chief authorities in mental science,—we only modify it by the introduction of a word :- "It is no slight thing to take out the sting from pleasure and to avoid corrupting our notions of reality while gratifying our artistic sensibilities. . . . Nevertheless we ought not to look to an artist to guide us to [scientific] truth; it is

enough for him if he do not misguide us."

But all the influences we have considered put together are comparatively slight, and they have been greatly over-estimated. One of the most marvellous facts in the history of the human race is this, that through all our intellectual revolutions, the throne of poetry, although repeatedly assailed, remains unshaken; new conditions of thought cannot transmute the essence nor impair the power of art. Scientific knowledge has been shifting from the first; we boast, and not without reason, of its progress; but theory after theory has been exploded, system after system has been laid aside, method after method has been swept away. We are assured that we have now at length reached the positive stage; that science may now claim the name of fixed, and that its verified laws must be received as final. Time will prove. To our reason all this seems irrefragable, but the history of finality is not encouraging. Scientific opinion never changed so rapidly as to-day, and in another century or two some even of our verified certainties may be smiled at as youthful dreams or infantile delusions. Wave after wave of thought sweeps over the civilized world, and the "old order changeth, yielding place to new;" and yet the poets stand like the "great mountains," against which the surges break in vain: cloud chases cloud across the intellectual firmament; but when the fury of the storm subsides, and the shock of the elements is spent, the poets emerge again, serene as the stars, "for ever singing as they shine." Science grows old-good poetry never. Homer has still the dew of his youth, and his song is as fresh and sweet as when it first ravished the isles of Greece. Professor Huxley has paid his tribute to that touch of nature in the shepherd's midnight reverie; more tender, if less sublime, is this equally familiar scene:-

Thus Hector spake, and stretched his arms to his child. 'Against the nurse's breast, with childly cry,
The boy clung back, and shunn'd his father's face,

And feared the glittering brass and waving hair Of the high helmet, nodding horror down. The father smiled, the mother could not choose But smile too. Then he lifted from his brow The helm, and set it on the ground to shine: Then kissed his dear child, raised him with both arms, And thus invoked Zeus and the general gods:-"Zeus and all godships! grant this boy of mine To be the Trojans' help, as I myself; To live a brave life, and rule well in Troy! Till men shall say, 'The son exceeds the sire By a far glory.' Let him bring home spoil Heroic, and make glad his mother's heart." With which prayer, to his wife's extended arms He gave the child; and she received him straight To her bosom's fragrance-smiling up her tears.

Though torn from its setting, and seen in an alien light, this gem retains its beauty:—

At length the Poet sings the Man, Greater than all th' immortal gods; With heart less mov'd the page I scan, When Zeus with all his thunder nods,

The teeth no longer bite the spear;
Thick gouts of gore no longer fall;
Some choose the scenes of death and fear,
One glimpse of love enraptures all.

The poets who have been left as waifs on the shores of time are those who were entangled in the meshes of their own period, and who failed to touch the chords which vibrate through eternity. Those who have reached the universal heart were "not of an age, but for all time." The vaunted discoveries of modern science,—the supremacy of law, the vastness of the universe, the persistence of energy, the mystery of life, the awe of the Unknown and Unknowable, all the conceptions to which "Paradise Lost" is a trifle, have been, if I may use such an irreverent phrase, the stock-in-trade of the poet from the beginning. Fate, Nemesis, Necessity, the Infinite, the Eternal, the Immutable, the Inscrutable; the transient tragedy of life in the midst of it all, man's insatiable yearning, his unconquerable will, his undying hope! Do the Vedic bards, the Greek dramatists, the Hebrew prophets know nothing of these? problem of the "Book of Job;" is it not still the mystery of our "Faust" only reproduces it in modern form common humanity? and from a different stand-point; and you may measure the net influence of science upon poetry by the change. I think the advantage will not be all on the side of the modern poem. It seems to be forgotten that the poetry of the heavens is older than the nebular hypothesis, and Lord Rosse's telescope, and the determination of the velocity of light. The ancient Jewish lyrist, who knew little of the celestial mechanism and less of "the critical philosophy," found the sublime just where Kant found it, in the starry world

above, in the moral world within. He was not positivist enough to read in the heavens "the glory of man only;" but he was poet enough to give, in antiphonic music, articulate response to that song without words which declares "the glory of God." If, when he considered the heavens, he fell in awe before the Eternal, in whose Presence man's wisdom seemed but a fleeting dream of the darkness, his might as tow on which the spark has fallen, his beauty as the fading flower of the field, his life as the foam cut off upon the wave; it was only to rise as one born from above, and to front his own hereditary skies with the triumphant psalm :- Thou hast made him in the image of God; Thou hast crowned him with glory and honour; Thou hast put all things under his feet. There is no need to sweep through space on the wings of light, and to measure the celestial distances and periods by rows of ciphers, in order to become conscious of the Infinite and Eternal. Modern science has only given more definite outward symbols for ideas already in the mind of man; but all those conceptions which beggar the imagination of Milton are no standard for humanity. If "this universal frame be without a Mind," the spirit of a little child is more than the whole material world.

#### III. THE SYNTHESIS.

We have now reached the last question proposed. Some scientific truth is full of beauty; some poetic beauty is full of truth: will the "truest truth" and the "fairest beauty" never blend in Plato's

highest good?

But our time is gone. I must be content if, like Moses, I have led you to the borders of the Promised Land. We may, for a moment, see it together with our eyes; you must go up and possess it for yourselves. To borrow further from the quaint imagery of Cowley, as well as to follow in his steps: "It is the custom of heroick poets (as we see by the example of Homer and Virgil, whom we should do ill to forsake to imitate others) never to come to the full end of the story, but only so near that everyone may see it: as men commonly play not out the game, when it is evident they can win it, but lay down their cards and take up what they have won." There is, however, a difference. The game is up, but have we won? Is it possible to win? This is the question which only the future of humanity can solve. But though we may not touch the goal, let us keep it in view. Human progress, indeed human life, is the resultant of diverging powers; the dualism of object and subject is inevitable; every manifestation of energy has its positive and negative pole; the law of relativity, so far as the human mind can at present judge, is universal:-

> Through all things runs antithesis: Yet every pole attracts a pole; Thus springs the higher synthesis, From diverse parts, the perfect whole.

The reason, which endeavours to bring everything within the comprehension of the finite mind, must of necessity differ from the imagination, which strives to apprehend the Infinite. The higher life of every man is in part the outcome of the conflict of these forces. Neither is supreme, neither is a safe and certain guide alone, neither is the final court of appeal, on all things. And yet their mutual action and reaction go on in one and the same consciousness; and though their strife is painful, we can already see that it is beneficial. Is it impossible that, in a further stage of development and in a higher plane, their discord should be resolved into harmony? The great apostle of positivism is never weary of asserting that they are the diverse aspects of the one. He regards the æsthetic faculty as the intermediate link between the mental and the moral "There is," he says, "a profound affinity, which, in accordance with the fundamental laws of the human organization, unites spontaneously the sentiment of the beautiful, on the one hand to the appreciation of the true, and on the other to the love of the good." May not these three tones be found at last to constitute the common chord? Nay, do not gifted spirits already hear the harmony of the choir invisible? Locke finds beauty in truth: "Nothing is so beautiful to the eye as truth is to the mind." Wordsworth finds beauty in goodness:-

> Nor know we anything so fair As is the smile upon thy face.

Keats finds power to know and do in beauty:

For 'tis the eternal law That first in beauty should be first in might.

But the night would find us, were we to show in full how Platonists and Aristotelians are being perpetually drawn into each others embrace. We may sum up by saying, that the scientific man who does violence to the good and the beautiful, will miss the truth; that the artist who does violence to the true and the good, will miss the beautiful; that the moralist who does violence to the beautiful and the true, will miss the good. You may find science as well as poetry in the idea, that there is no supreme truth which is not beautiful and good; no supreme beauty which is not good and true; no supreme goodness which is not true and beautiful. There is one Name which is above every name, with which, by the general acclaim of Christendom, is associated the sublimest truth, the fullest beauty, the purest goodness, whereof this world holds record. This harmony in the Son of Man is the hope of our race. Mr. Spencer would refer the synthesis to the Unknown and Unknowable. In whatever sense his theory may be just, as stated by himself it goes down before the trenchant and irresistible criticism of M. Littré. Unknown of the man of science is the "limit"; the Unknown of the man of faith is the "object": and the distinction between "limit" and "object" is vital. It is the narrowing materialism

which fixes a limit to all human powers, where the pure intellect finds "no thoroughfare," which casts the one shadow that at present rests on the fair face of science, and drifts sometimes as a mist of sensualism over the vision of poetry herself. This new avatar of dogmatism threatens to be a destroyer as fierce and fiend-like as any that have gone before. But, happily, when the reason is brought to a halt, and all beyond is dark, the human spirit asserts itself. Thanks to the human heart by which we live, some shape of beauty still doth move away the pall from our dark spirits, and teach us how to bear the malady of thought in this mysterious world. When, amid the routine of cosmic and atomic forces, and the gradual but certain degradation and dissipation of energy, Dr. Büchner can see nothing in humanity, but an ephemeron hovering over an eternal and infinite sea, into which it is destined to be plunged as into the gloom of night and death; then the spirit rises in its strength, and we realize that truth has other than logical avenues to the consciousness of man.

If e'er when faith had fallen asleep,
I heard a voice, "Believe no more,"
And heard an ever-breaking shore
That tumbled in the Godless deep;
A warmth within the breast would melt
The freezing reason's colder part,
And like a man in wrath the heart
Stood up and answer'd "I have felt."

If as yet the two voices of mind and heart do not always blend in one, the man who listens not to both will miss a portion of the truth. Each within its sphere has its message; in each case the knowledge is only in part, but it is part of the whole. "Peace, then, in God's name! Let the various orders of humanity live side by side, not by being untrue to their own distinctive genius, . . . but by supplementing each other reciprocally. . . .

The harmony of humanity arises from the free emission of the most discordant notes, . . . and humanity would be impoverished if one of its constituents were wanting." Let the man of science speak: let him bring the complex phenomena of the universe under the unity of law; let him analyse matter into its elements, and reduce the varied faculties of mind to two or three simple functions of consciousness; let him determine the physical basis, and trace the evolution and variation of life; let him follow the earth in its daily, annual, and secular motions; let him count the vortices of atoms in their ceaseless play, and mete the ripples of the ether, as it transmits energy from world to world; let him speculate on the origin, course, and dissolution of celestial systems; and when he confesses that all that is seen is temporal, and is gradually vanishing away by inexorable necessity into the unseen and unknown, where there is neither voice nor light, and the reluctant mind forsakes as hopeless the quest of the source, and reason, and end of all, and flags wearily in its unending flight, till it sinks dizzy,

blind, lost, shelterless: then let the poet take up his parable and sing:—

I see the infinitely vast,
I see the infinitely small;
The stars are golden dust broad-cast,
The seed, the dew-drop holds "The All."

And is the world a huge machine, Whose wheels rotate from hour to hour? Mere friction oils the joints, I ween, And space evolves the motive pow'r!

There lives a Soul in every part,
There moves a Mind in all the laws,
There beats within, a Loving Heart,
The First, Efficient, Final Cause.

Yes! Love breathes on the world's dry bones Till all the trodden dust revives, And music swells above our moans; The Love that lives renews our lives,

I feel a Presence everywhere, Breathing in fragrant morning hours, Winging the limpid summer air, And nestling in the budding flow'rs,

It glimmers in the setting sun,
It sings throughout the starry night,
And, while the mystic circles run,
Moves in the calm mysterious light.

Within the forest's secret gloom, Beneath the billow's ceaseless strife, Off where the thyme and heather bloom, And light is musical with life;

Where sleep the daisy-dappled meads, And rippling waters softly glide, Where breezes rustle in the reeds, Where clouds upon the whirlwind ride;

Where through the valley sweetly flows The pealing of the village chime, Where on the mountain silent snows Are shaken from the wings of Time;

Beyond the surging of the sea,
Above the broad ethereal dome,
Afar in deep Immensity,—
Where'er my wayward thought may roam,

A Spirit greets me with its smiles, And folds me to its sheltering breast, And all my weariness beguiles, Till Nature loves and life is blest;

Till from the rock unwonted tears
Burst at the piercing touch of joy,
And o'er the strength of manhood's years
Re-blooms the freshness of the boy.

O mighty, tender pow'r of Love! Thou bidst the world grow beautiful; Thy deathless light yet shines above The mortal shadows cold and dull;

And all I see, and think, and feel, Illumined and inspired by Thee, Becomes the symbol of the Real, And speaks The Present Deity.

## The Eastern Caucasus and Dagbestan.

By His Excellency Lieut.-General Sir Arthur Cunynghame, K.C.B.

In this rough recital of my experiences during my last trip in Asia, the merit, if any, which I lay claim to, is that of having undertaken this journey in a country where few Englishmen have preceded me, and therefore freshness and novelty may give it some interest.

The general features of our expedition comprised a run through Europe to Constantinople, Southern Russia, and the Crimea, the Cis and the Trans-Caucasus, with a return home by the southern shores of the Black Sea. I propose mostly to dwell upon those places

less known, such as Daghestan, &c.

On the 9th of June, we landed at Antwerp, and proceeded thence viâ Brussels, Aix-la-Chapelle, Cologne, and Munich, to Vienna. We here took advantage of the opportunities which were placed in our way, by His Excellency Lord Blomfield, of seeing as much as possible of the military establishments of Austria, and it is satisfactory for me to think, especially after a recent visit to Woolwich, that we have very little to learn as to military science from that country.

Leaving the interesting and beautiful city of Vienna, we next visited Pesth, where, since its emancipation, giant strides of improvement are everywhere evident. Pesth bids fair to become one of the

handsomest, largest, and most thriving cities in Europe.

Passing through Temesvar, we embarked at Basiach, on the Danube, and threading the Carpathian mountains, in two days reached Giurgevo. Here we struck north to Bucharest, a city covering as much ground-space as Paris, but so little known in the west.

Returning by Rustschuk, we proceeded to Schumla, where Ali-Kerim-Pacha presented me to his army corps. Many years since I had commanded a division of the Sultan's troops, and it is with the greatest interest that I can bear testimony to their general improvement in appearance, physique, activity, and the cleanliness of their camp.

Leaving Schumla, we reached Varna. The last time I saw this roadstead, now nearly deserted, it had contained between 500 and

600 ships, the fleet destined to attack Sebastopol. Leaving Varna, we landed at Constantinople. There are so many well acquainted with this beautiful city, and who could describe it better than myself, that I will only remark, that the rapid strides which are being made in the improvement of the city, make me think that ere long, it will equal in cleanliness, as it now surpasses in beauty, almost any city in Europe; the development of its naval and military organization is, moreover, surprising to those who, like myself, knew it nearly forty years ago.

At this stage of our journey, a stronger interest surrounded us, as much, if not all that I saw, with the exception perhaps of the Crimea,

was new to myself, as it would be to other Englishmen.

Leaving Constantinople in a fine vessel, nominally a trading steamer, we started for Odessa. I may mention that these Russian trading steamers are officered by the Imperial Navy, thus keeping her naval Officers in training, and giving those that are energetic, the advantages of considerable extra pay and allowances.

On leaving the Bosphorus, the Russian Consul-General presented me, by order of the Russian Ambassador, with letters for the authorities in Southern Russia and the Caucasus; these we found

of the utmost advantage in our subsequent journey.

I may here mention that we were generally informed that the journey we proposed to take in Daghestan, we could never accomplish—that we should be lost in the mountains. I own that it was not without some misgivings on the subject that we determined to

proceed.

On the third day we landed at Odessa, where, no sooner was it known that I was an English General Officer, than every Customhouse formality was immediately dispensed with, and every attention was shown me. Odessa is a cold, bleak, and comparatively new commercial city; its great industry being that of shipping corn for England. The inventions for sifting and airing grain are far behind those in use in America, no steam machinery existing for this purpose; but as fine quays have been erected at a large expense, vessels of 3,000 tons can easily lie close to the piers.

We were naturally very desirous of visiting Nicolaief, that Russian

arsenal which is creating so much interest in England.

We left Odessa at twelve p.m., and early on the following morning, passing the Kinburn Spit, we entered the River Bug. The channel was represented to be about twenty-one feet deep, the bottom soft mud. The river narrowed gradually as we approached Nicolaief. About seven miles below that city we passed three powerful forts, one on an island in the centre of the river, and one on either bank; these were armed with heavy Krupp guns. We disembarked near the junction of the Bug with the River Ingul, the arsenal being quite hid from our view by the range of hills upon which the town stands. Subsequently we had a good opportunity of seeing the arsenal itself.

The Times has given an account of the launch here of an ironclad of 480 horse-power, The Novgorod; it may therefore be considered very bold of me to state that I cannot yet look upon Nicolaief as an iron-clad constructing arsenal. How this vessel has been constructed I can only surmise; her plates may have been brought by sea from Western Europe, or may have been sent by rail from St. Petersburgh; but I can scarcely believe that they were rolled in a genuine way in Nicolaief itself; and without a large command of iron and coal on or near the Black Sea, it is almost an insurmountable task for Russia to construct a really powerful ironclad steam fleet such as would endanger Constantinople.

We may look at the difficulties and immense expense in iron shipbuilding which, with all our advantages, are entailed upon us; we have skilled workmen, iron in close proximity with coal, for years a gradual progressive knowledge of this art; and yet by what enormous energy alone are we enabled to surmount them! There may be coal and iron on the River Don, but as yet, this industry is in such a state of infantine development, that the rolling of such huge plates as form the sides of the *Devastation*, is altogether out of the question; and what I saw in the arsenal on the Ingul, gave me the impression that some of our large mercantile ship-building establish-

ments could far surpass it.

When we remember, moreover, the magnificent ironclad steam fleet now dotting the Bosphorus, under the walls of the Seraglio, it is futile to imagine that the Russians can for many years to come, produce such a vessel on the shores of the Black Sea as could exist under the fire of such monsters as the Sultan has collected for the defence of his Empire. Nor can I for a moment believe that the Turks could be so infatuated as to sanction the passage through the Dardanelles or the Bosphorus of any such vessels as would be likely to be injurious to them. My belief is, that it must be a very long time ere such a fleet could be constructed on the Ingul, as would cause us or our friend the Turk, any great amount of anxiety.

We returned in a crowded vessel to Odessa, but such was the kindness of the Captain (an Officer of the Imperial Navy), that, himself

sleeping on deck, he relinguished his cabin to us.

On the following day, we embarked for the Crimea, touching at Eupatoria, which, on my last visit, was threatened by the grand fleet

of 600 ships, when we attacked Russia.

In the afternoon, we reached Sebastopol, the desolation of which, was more remarkable than when I had left it, on the breaking up of the grand army in 1855. From 80,000 inhabitants, Sebastopol has now dwindled down to 8,000.

It is contemplated by many that Sebastopol will become a grand mercantile harbour. When the system of railroads from the corngrowing countries to the east, west, and north are finished to this port, its perfect security and depth of water, offering facility for vessels of any tonnage to approach the quays, and thereby preventing a second embarkation of corn (as is now the case from the Sea of Azof), a vast saving of expense will be effected, and the city which stood as the menace of Europe will be converted into one of the

largest peaceful mercantile emporiums of the world.

We visited the well-remembered trenches and the battle fields of Inkerman, and saw the spots where many a friend was laid low. The mausoleum erected by the Russians in the shape of an Egyptian pyramid, is solid and handsomely constructed. That, as well as the French cenotaph, has the advantage of gathering together in one spot, if not the actual remains of all those soldiers who died for their country, yet concentrates the recollections of their glorious deeds, whereas the vain attempts to preserve the monuments of our brave countrymen scattered over the wild plains where they fell, are almost impossible of achievement.

We visited Alma and Balaclava and the valley of Inkerman; but it is impossible here to dwell upon these interesting fields, or upon beautiful "Bagtchi-serai," the burial-ground of 80,000 Russian

soldiers.

We then embarked for Yalta, and saw the palace of Prince Woronzoff at Alupka, and the Emperor's palace at Lavadia, and

thence proceeded to Kertch.

This fortress has become most interesting. I was astonished at the immense fortification which the Russians have here erected. It is said to be a pet work of Todleben, and to have already cost 22,000,000 of roubles, and, for ten years, the daily labour of 2,000 men. It appears doubtful to me, however, if any circumstances could arise, whereby this great outlay could meet with commensurate advantage. I had some opportunities of seeing the outer works of the fort, but could not obtain admission into the interior.

Re-embarking at Kertch, we sailed past the fort of "Yenikale," between Europe and Asia; the Strait here is very narrow and easily

defensible.

The Sea of Azof is muddy, shallow, and subject to constant storms; we had a deluge of rain, many of the passengers and the Captain were attacked with cholera, and we had a most uncomfortable passage to Taganrog. Here we came upon the great arable plains of Eastern Russia, one farmer possessing 40,000 acres of corn lands in his own hand. It was satisfactory to see the immense number of English agricultural machines which were being imported into that country.

We next embarked on the River Don, and were four days going up that river. We had an opportunity of seeing the Don Cossacks, as fine an irregular force as exists. Their system of service depends upon patriarchal principles, for whilst each in turn is devoting his services to the Emperor, the rest are occupied in cultivating their lands. There are 80,000 Cossacks of the Don, a proportion of artillery as well as cavalry: a large number are always on duty at St. Petersburgh. They are excellent horsemen, active, intelligent,

and trustworthy, and their power of enduring either heat or cold, is almost incredible.

At length we reached Kalach on the Don, and passed by rail to Tzaritzin on the Volga. Here it is supposed was an ancient canal, by which the Genoese—those wonderful pioneers of commerce—took their small vessels, and passing from the Mediterranean through the Black Sea by means of the Volga, descended into the Caspian, and formed settlements at the base of the Caucasus mountains, the descendants of whom, although changed in their religion from Christianity to Mohammedism, are still residing in their mountains.

At Tzaritzin, we embarked on the Volga, and had a most uncom-

fortable passage down the river to Astrakhan.

It was at Astrakhan that Peter the Great first built his naval dockyard on the Caspian; and the boats which he built with his own hands and his basket of workman's tools are still shown. Peter had a sure prescience of the future Eastern conquests which Russia would make. True to Russian policy, the Caspian arsenal has now advanced towards the shores of Persia, to Baku. Near Astrakhan is a large Mongolian Kalmuck settlement, 80,000 of whom inhabit a district on the western bank of the Volga; they are the only Buddists in Europe who worship in Chinese temples, and inhabit Mongolian tents, so ably described by Colonel Yule in his travels of Marco Polo. They drink the brick tea with fermented mare's milk and resemble the Nomadic tribes which I had seen in the north of China and the Thibetan valleys.

The wealth of the cathedral at Astrakhan is fabulous; pearls and diamonds in profusion being shown to us. Here, there used to be considerable trade with the East, and with India, which latter appears

now entirely extinguished.

We now entered the Caspian Sea, the greater part of which is very shallow. It is so stocked with sturgeon, that the value of this fishing is said to be about £2,000,000 sterling per annum; wild ducks are in such profusion that they sell for three half-pence each, and pheasants are said to abound on the islands at the sixty mouths

of the Volga.

The eastern side of the Caspian is little known; it is inhabited by a warlike race of Kurds. The Russians have established themselves on some isolated points, of which the fort of Krasnovodsk is an example, and it is hence that a column has started for Khiva. On the western side of the sea are some interesting towns, especially that of Derbend, where an ancient wall partly exists, resembling that of the great wall in China, and also Baku, the seat of the eternal fires, whence, Marco Polo relates, petroleum for lighting purposes was carried as a regular industry throughout a large portion of Armenia.

We landed at Petrovsk, and after some difficulties struck into the mountains to visit Daghestan and the fighting grounds of the

renowned Schamyl.

We were now fairly in the Caucasus; and perhaps this is the

proper moment to consider the Russian army which is kept in that division of the empire, and which to our ideas seems very large, as the country is not so extensive as either the Bombay or Madras Presidency.

The Russian army in the Caucasus consists of:-

0 1	
Cavalry	3,700
Infantry	131,500
Artillery	8,000
Engineers	2,300
Establishment	5,800
_	
Total	151,300
Steamers on the Caspian	20
,, ,, Aral	4
,, ,, Black Sea	29

The greater portion of the eastern mountain districts, or Daghestan, was only subdued some ten years since; here the renowned Schamyl ruled with determined vigour, resisting for nearly twenty years the mighty monarch of more than 1,200,000 soldiers—a force of at least 120,000 men during all this time being constantly employed—while Schamyl's army never exceeded 20,000 native Circassian warriors. This unexampled feat requires some consideration to render it credible, but shows how an impregnable country, composed of natural fortresses, is able to resist the most determined and skilled armies.

To no small degree was our interest augmented when told by the Russian Generals that only two English travellers had ever previously penetrated into this country. I need not now dwell upon the hardships and difficulties which a journey into these mountains entailed upon us. At length we reached Guinib, the last stronghold of Schamyl. Guinib is a natural fortress, 4,000 feet above the valleys which surround it, but little larger than Gibraltar, its sides, the naturally scarped rock, impossible to ascend. Here great heroism was displayed on either side; at an immense sacrifice of life, the stubborn Russians under the command of Prince Bariatinsky, obliged the heroic Schamyl to deliver up his sword.

Opposite to Guinib is the country of the Kasi-Kamouks. are the lineal decendants of the Genoese, to whom I have previously alluded; they are equally skilled in gold and silver work as were their Christian progenitors in Italy; none can now excell them either in London or Paris in their adornment of arms or in jewellery, and it was by these men that the soldiers of Schamyl were provided with their best arms. One of the most remarkable features of that war was that up to the date of the Crimean campaign, no army of civilized Europe had been universally armed with the rifle, whereas there was no soldier who fought under Schamyl but carried a rifled weapon; this fact alone would account for the wonderful resistance

made by that national army,

From Guinib we passed into Honsak, the command of General Prince Nakashudjee, who repeated all the attention and kindness of General Kamaroff; thence to Bodlith, where General Prince Chafcha-vadsey—descended from the Royal Family of Georgia—and General Prince Orbeliani, commanded. Thence we crossed the mountains towards Weden; hear we saw the almost incredible feats performed by the mounted Tartar horsemen, who although on the edges of precipices, riding at a furious gallop, stood upon their saddles, fired their muskets beneath the bellies of their horses, or, leaning down, picked up pebbles from the heath. On our road to Weden, we passed that gorge in the mountains where Prince Woronzoff suffered his disastrous defeat.

At Weden, Prince Errinsoff received us with the usual kindness. We were now in the real district of the Checkengis or Circassians. The men were fine-looking fellows and the women handsome. Since the conquest of this country by Christian Russia, the purchase of

women is almost impossible.

Here again is the seat of those fierce bands of the Amazons who, regardless of all danger, with shirt of mail and casque of steel, fought in the front of the battle, obtaining immense proficiency with the bow and the spear, which they wielded with such dexterity.

Our ride through the mountain was now ended, and henceforward we obtained the posting-carts of the country. Remaining a brief time at Vladi-Cavcas, the capital of the Northern Caucasus, we pre-

pared to cross the mountains into Asia.

The first object on our passage through the Pass of Dariel was the magnificent mountain, Kesbek, perpetually covered with snow; it is 1,000 feet higher than Mont Blanc, and it is satisfactory to record that the first person who surmounted the difficulties of the ascent of both Mounts Kasbek and Elbwitz was an Englishman, Mr. Freshfield.

It was at the feet of Kesbek that we met his Imperial Highness the Grand Duke Michael, from whom, subsequently, we received

the utmost attention.

We next proceeded to Tiflis, which we reached in the early part of September. It is impossible here to enter upon more than the salient points of our journey, but perhaps you will allow me to speak of the subject of the railway system of these countries, which is

creating such an interest in Europe.

A railway is now completed from Poti, on the Black Sea, to Tiflis, and is to be at once proceeded with to Baku, the new arsenal on the Caspian. A rail is projected to connect Taganrog by Stavropol and Derbend, by the shores of the Caspian Sea, to Baku, and from Baku it is contemplated to extend it to Teheran. It is advocated by many that we should subsidize the scheme which is proposed, of connecting Constantinople by a line running south of Trebisond towards Mount Ararat and Erivan, and thus to Teheran, and that prolonging this line by Herat and Candahar, we should join it at Mooltan, with the railway system of India.

Again, the scheme of Monsieur Lesseps, by which communication between Europe and India should be made viâ Moscow, Samarkand, and Cabool to Peshawur, and the line of the Euphrates Valley, have

lately been brought prominently to our notice.

It cannot be otherwise than with feelings of great respect that we look upon a scheme advocated by so renowned a man as Lesseps, who has united the navies of two worlds; but at the same time, bearing in mind the enormous length of the line which he advocates, and which in its execution would probably require a sum of £50,000,000 sterling, as also the great military objections of being dependent upon the good auspices of Russia for our overland communication with India, I really think we may dismiss this line of

communication entirely from our contemplation.

Again, the line through the North of Persia, for almost the same reasons that I have adduced respecting that through Russia, cannot but meet with grave objections. The one would probably equal in expense the other, and would be open to almost the same military objections, as the armies which could readily be brought from Russia by the Caspian from the Volga, and by the line of rail to which I have alluded from Taganrog, would materially frustrate,-should we be at war with that Power, -all endeavours on our part to succour our armies in India through the assistance of a speedy overland route by the north of Persia to that country. I cannot, therefore, but believe that if it is conceded that an overland line of rail should be made to India, the line by the Euphrates valley from Aleppo to Grain, on the Persian Gulf, is the one which it will be most advisable to adopt. No doubt it could not be considered complete until a connection was formed between Aleppo and constantinople, and also by Bagdad through the south of Persia to Kurrachee (of course I premise that Aleppo has been joined to Alexandretta). But the advantage of the Euphrates line is, that the portion from Alexandretta to Grain being completed, this portion could be at once utilized as the assistant to a speedier transit, and thus, should any unforeseen accident happen to the Suez Canal, we should not be left, as our only alternative route, with that of the Cape of Good Hope.

We were surprised at the size and prosperous appearance of Tiflis, the capital of the Caucasus. In its centre is the palace of the Governor-General, the Grand Duke Michael, brother to the Czar, and who receives £70,000 per annum to enable him to keep up the dignity of his position. So little is Tiflis known, or considered, in England, that not even a British Vice-Consul is stationed here.

While at Tiflis we visited Prince Mirsky, who commands an army of about 100,000 men, and Baron Nicolaief. Both were residing at Kadjori, in some mountains above the city, whence a magnificent panorama of the Caucasian range was visible.

The splendour of the view will be understood when I say, that fully half a dozen mountains, each higher than Mont Blanc, might

be seen rising up at various points.

We then posted south towards Erivan and Mount Ararat, entering

some wild arid plains covered with large boulder stones. Even the melon carts had their escorts of armed men, whose muskets were always in readiness.

About half-way to Erivan lies Lake Gotcha. There the Armenian

monks declared fish can only be caught during Lent.

The appearance of Mount Ararat is sublime. It is nearly 18,000 feet high, and one-third of the mountain is always covered with snow, No person except, of course, Noah and his family, has ever been to the top. To get there I believe is impossible. The point where the corners of Russia, Persia, and Turkey in Asia meet, is exactly at the apex of the mountain.

Erivan is a very singular city. The dress and language there are

quite in the style of the Arabian Nights.

From Erivan we travelled at the base of Mount Ararat, to the Armenian convent of Echmiadzin, not far from the borders of Turkey. It is very ancient, and its manuscripts are 2,500 in number. These are all that remain of a once very large library, which was almost all destroyed in the Persian war. It probably contains a large number of the works of the early fathers, which were mostly written in Armenian. There is also a church with curious architecture, date B.C. 300.

We next proceeded to Sardarabad, and in two days, after much difficulty, reached the town of Alexandropol. This fort although almost unknown in Europe, is one of the strongest and largest in Russia, and cost in its erection no less than 22,000,000 of roubles. It is built to menace Kars, from which it is about seventy miles

distant.

We now entered a beautiful district, visiting Akhalkalakik and Akhaltsikh, and passing not far from the mineral spring of Abastuman, visited Borjome, the country seat of the Grand Duke Michael. In his absence, we were received with the utmost kindness by Her Imperial Highness. Thence we posted to the junction of the railway from Tiflis to Poti, passing through the malarious forest of Imeritia.

The vegetation of this district is very remarkable. Vines grow in profuse luxurance, immense bunches of grapes hanging pendant from the slender branches which entwine themselves round the elm trees of the forest, while cereals flourish abundantly wherever they are sown. The rivers running from the mountains wander through this widely-extended forest. These are the far famed streams where Jason sought the golden fleece, and which even to this day are made use of in the same manner to procure this precious metal. The woolly fleeces of the mountain sheep having been immersed in these running waters, the fine gold particles which adhere to them are carefully picked out.

We had now terminated the arduous portion of our land journey. We had traversed Daghestan almost from end to end, a country scarcely more known in England than by name. We had seen some 222 Sonnet.

of the highest mountains in the world, and visited the most beautiful scenery. We travelled in the Caucasus alone 1,340 versts, having ridden a portion of this distance in the crutch-like Tartar saddles of the country, the remaining distance on carts without springs. We had lodged alternately in palaces and pigsties; had eaten alternately luxuries and lived on black bread and stale fish; we had seldom taken off our clothes or slept on other than wooden boards; but all these hardships only enhanced the pleasure with which we had travelled through this almost unknown, interesting, and beautiful country.

The mountains of the Caucasus contain a race of as handsome and sturdy mountaineers as any in the world; the plains are rich with vegetation to a degree scarcely credible, and the mineral rewards which scientific seekers may obtain, are as yet hidden for future

research.

The native inhabitants are gentle and phlegmatic; the Russian settlers energetic and very hardy, but rude and uncivilized, the upper classes hospitable to a stranger to a degree almost incredible; and it was with feelings of gratitude to them, and admiration of this surprising country, that we quitted its shores.

### Sonnet.

Divinest Art! Enchanting Poesie!
How oft uplifted by thy powerful aid,
To some divine realm I seem conveyed,
From vulgar cares, and jarring discords free,
Where brighter sunbeams tint a calmer sea,
And sweeter scents embalm the flowery glade,
And softer zephyrs float from flower to tree;
While music by immortal voices made,
Floats my whelm'd soul upon its currents strong,
And half I hope to join that glorious throng,
Whose harps, up-raised beyond the reach of time,
Teach lofty truths, and echo thoughts sublime.
Then soon recovering from that sudden madness,
I feel refreshed, though full of hopeless sadness.

# A Ride for Pife and a Wife,

A Story of the 1834 War.

I AM an old man now, but I shall never forget a ride I once had for life and a wife. It was on the 23rd December, 1834, that the news reached Graham's Town of another Kafir outbreak. The whole town was in commotion, as I think there were very few, if any, military in the fort; and Colonel Johnstone and the Civil Commissioner called for volunteers to take a despatch to the Civil Commissioner of Uitenbage, to convey the intelligence and request him to raise a commando to send to our aid. Not a soul would go, although great rewards were promised; but it was reported that Howison's Poort and Assegai Bush were swarming with Kafirs and no one wished to be killed.

I was sitting on a shopboard (being a tailor by trade) when I heard of the outbreak and the call for volunteers, and was just putting the finishing touches to my wedding coat, for I was to be married on the 26th. Hurrah! thought I, here is a chance to distinguish myself, and earn a nice little sum to commence housekeeping with, and give Susan a handsome present. So up I jumped, hastily slipped on my boots and jacket, and hurried up to the Court-house to offer my services to the Government. I found the officials and others in a state of consternation dreading that the enemy would be in the town before assistance could be obtained. I am not a big man, but I can tell you I felt myself to be of some consequence that day when I saw how gladly the Colonel and magistrate accepted me as the bearer of the despatch. They bade me come again in an hour when a horse and my credentials would be ready.

I ran down to say good-bye to my mother and Susan, and they nearly persuaded me not to go, everyone declaring I should be murdered. My old mother entreated me with tears to stay; and Susan, poor girl, went off into hysterics, and declared she would never see me again. It took some time to bring her round, and then she nearly succeeded in getting me to break my resolution. "Oh Harry, Harry," she said, "how can you go away like that, you know we are to be married on Tuesday, everything is ready and now you are going away and we shall never see you again till your murdered body is found, and the Kafirs will come, and there will be

no one to protect your mother and me."

"Cheer up, old girl," I replied, "I have no intention of letting those rascally black fellows kill me, and if I am alive and well, you will see me back on Monday night ready to be married the next day, and with a good appetite for the old turkey we are to have for the dinner; and just think," I went on trying to divert her thoughts, what a nice little nest-egg the reward will be for us to have. We

shall be able to get ever so many little necessaries for our house that we have not been able to think of getting,"

"How much will you get," she asked.

"Well I did not ask the amount, it seemed so mean to inquire the price of one's life, as you may say; but they said I should be well rewarded if I took the despatch safely, and you may depend upon it I mean to come back alive. So good-bye, darling, and don't

despair, but expect me back on Monday."

And now to look for a weapon of defence and away. Do you think that I could borrow a gun or pistol in Graham's Town? No, not a single person would part with theirs, they wanted them to defend themselves with, and every one thought that I was going out of bravado, and rushing to destruction. One old man of whom I begged the loan of his pistol, said, "No, you may get killed, and then I should lose my pistol." Why I did not get one from the authorities I forget. I suppose they did not consider my life of so much importance, or in the hurry and confusion of the moment, neglected to see that I was armed. Strange to say, I had not the least fear of going alone or unarmed, though it was certain that I should have to traverse a road lined with Kafirs; but my courage was wonderfully strengthened by the stiff glass of French brandy that the Civil Commissioner gave me, as, shaking me by the hand, he solemnly bade me farewell.

Away I started. My horse was a noble animal, one of the Colonel's own, and bore me gallantly. All the way down through Howison's Poort and out on the other side I met trains of wagons; people were trekking into town from all directions. They shouted out to me to tell them the news, but I never stopped. On I dashed, my horse reeking with sweat, but showing no signs of fatigue. By nightfall I reached Quagga's Flats, where I got something to eat at a small farmhouse but could not get a lodging as the place was already full with people trekking into laager, so I kneehaltered my horse, and stretched myself on the ground under a tree. Early in the morning just as I was starting, a man rode up with two splendid horses he was taking to Uitenhage to sell. I immediately pressed one, and left mine to be taken care of at the farm. I made the owner of the horse come along with me. Away I rode again at breakneck pace, my companion following and shouting out, "You'll kill my horse, you'll ruin my horse, and I shall not be able to sell him." "Come on, man," I called out, "do you want the Kafirs to catch us?" No more was needed; whip and spur urged our horses forward, and at twelve o'clock I reached Uitenhage, and handed the horse over to its master, with directions to leave the saddle at the hotel.

It was Sunday, and when I went up to the magistrate's house I heard he was at church. Off I posted there, and beckoning to the doorkeeper, bade him tell the magistrate I had a despatch for him. He came out and we proceeded up to his house, where he

showed me to a room, ordered refreshments, and advised me to rest. The food I gladly partook of, but there could be no rest for me till I reached home. Had I not promised to be back the next day, and was I not to be married on Tuesday? The magistrate would not hear of me returning, and said he had strict orders from Colonel Johnstone not to let me return till the commando went. I declared nothing but death would stop me, so the magistrate gave me a fresh horse, and sent two constables to escort me as far as Quagga's Flats again. Nothing of any importance occurred, and I found my horse fresh and well cared for, and stayed there again that night. Next morning at daybreak I was once more on my way, still meeting wagons and families trekking into laagers and towns. I had got on as far as Assegai Bush, and was walking my horse slowly to rest him, thinking of the happy days in store for me and congratulating myself on the successful termination of my perilous ride, when my attention was attracted by seeing my horse prick up his ears and neigh. I looked round just in time to see two stalwart Kafirs, mounted and armed with assegais emerge from the bush and bear The rascals had no doubt been reconnoitering the down upon me. country, and, seeing me alone, thought to secure an easy prey. But I clapped the spurs into my horse's sides, and he bounded forward just in time to escape the assegais hurled at us by the foe.

And now ensued a chase for life; away I raced, not daring to look round, only hearing the thud of their horse's hoofs, and their demoniacal shouts now near, now a little further behind. My horse was equal to the emergency, and seemed to strain every nerve to get ahead. Once he stumbled, and the wretches gave a shout of triumph, and I thought I should never see Susan and home again, as two more assegais whizzed past me; but he recovered himself, and snorting, panting, tore along. "Go it, old boy, go it, good Hero; my life and happiness depend on you." That old man was right, I thought. He might never have seen his pistol again if he had lent it to me. Up hill, and through kloofs we rode for sweet life, the pursuers following, and gradually gaining upon us, till I sighted another train of wagons, the owners of which attracted by my shouts came to my rescue, and soon were in full chase after the Kafirs who, however, got away, as the people did not like to leave their wagons

for any great distance.

When I reached their wagons I was thoroughly exhausted, and begged to be allowed to rest in one a little while, which was cheerfully permitted. None but those who have experienced it can realize how sweet and precious life is when there is every prospect of losing it, and especially to lose it in such an ignoble way without being able to raise an arm to defend one's self.

Well, to cut a long story short, I proceeded on my way after an hour's rest and reached Graham's Town in safety by sundown, reported myself to head-quarters, gave the horse to the groom, and then went home to rest, first calling on Susan to let her see I was

Vol. XV.

safe. I soon went to bed after supper, and never woke till next morning, when my mother came and told me if I intended getting married that day I must get up. The bride had sent over to see how I was, and ask if we should not put off the wedding till things were more settled; but I would not hear of such a thing. After having such a ride for life and a wife, I was not going to be disappointed; and having had some breakfast, dressed, and was on my way to the church, where I received the greatest blessing of my life at the hands of the minister.

For a few days I was regarded as a hero about town, but so many stirring events followed rapidly upon each other in those times that

people forgot it soon.

And about the reward, I fancy I hear you ask; did I get it, and how much was it? Well, I never reminded Colonel Johnstone of his promise, and when I gave the Civil Commissioner a gentle reminder about it, he said he must apply to Government about it, and four years afterwards, when all was peace, and the fear and terror endured, a thing of the past, I received twelve shillings, that being accounted sufficient pay for a journeyman tailor. But I flatter myself that I was the means of saving Graham's Town, as four days after I came back a commando of five hundred men arrived to defend the town, and did good service too.

Some other time I will tell you of another ride I had in the 1846

war.

RUBY.

Stockenstrom, August, 1877.

# The Bast Plague of Egypt.

O'er Memphis' huge temples in grandeur that tower'd Exulting to Heaven, the dark sunset lower'd; And Pharaoh, insensate, still harden'd his heart, Forbidding the Hebrews in peace to depart.

As the oak in his pride doth the lightning defy, As he haughtily rears his bold head to the sky While, heedless of danger, he recks not of ill; So Pharaoh was stern and inflexible still,

How proud in his wrath was the flash of his eye On Moses—"Depart! for that day thou shalt die When thou see'st me again." But the pleading was o'er, As God's messenger spake—"I will see thee no more." No sound in the air, save the scent-laden breeze That, perfum'd with lotus-flow'rs, sough'd thro' the trees, And, far in the distance, the jackal's deep bay, With the loud-screaming vulture disputing the prey.

The moon rose in beauty; her sweet, radiant light Illumin'd the fanes of Osiris that night, And beam'd on fair Goschen where, girded in haste, The Hebrews, expectant, the Passover taste.

As they carefully strike on the posts of the door, And dash on the lintels, the tokens of gore, How flutters each heart, and how trembles each hand,— "This night will Jehovah pass over the land!"

And peacefully rippled the beautiful Nile, By the palm-shaded temples on many an isle, Where the muttering priests in their gorgeous array, Kept idolatrous vigil by night and by day;

Where the snake and the beetle, in caskets so rare, Were hid in their shrines from the worshippers there, And from censers of gold the incense upborne To Osiris and Isis saluted each morn.

But on Egypt at midnight in wrath from the Lord, In fierce retribution descended His sword, As over the land the Omnipotent passed In a whirlwind of flame, on the wings of the blast.

Hark! hark! to that cry that arose on the air! The shriek of a nation in deepest despair! None like it was ever, none like it shall be, While man upon earth shall his fellow man see.

The pride of each household; the first-born of all, From the King on the throne, to the beast in the stall, Lay stricken and dead—in forgetfulness prone, 'Neath that chill breeze of death, like the grass when 'tis mown.

From the King to the beggar that cry travell'd on, And the face of each mother grew ghastly and wan, And dark desolation o'er Egypt was spread, "For there was not a house where there was not one dead."

OMICRON.

### Arrigation.

To the Editor of the Cape Monthly Magazine.

Sir, -I venture to call your attention to a letter written by a noble woman, Florence Nightingale, and printed in the Illustrated London News for July 7th, 1877. I think that, if you could find space to re-print this letter in the Cape Monthly your readers in South Africa will have intelligence enough to apply the lesson nearer home.

We read in the newspapers of the famine-prices now being paid in the up-country districts for forage, for wheat, and for "mealies," and the scarcity—in many cases entire absence—of such comparative luxuries as butter or potatoes. If we are compelled to travel in the Karoo or Achterveld districts, we are made painfully conscious of this scarcity, and we ask whether there is any adequate reason for this famine. The answer we are compelled to make to ourselves, after serious consideration, is-there is no adequate

reason.

Occasionally we pass a farm where an intelligent and comparatively far-sighted owner has made reservoirs, planted trees, and sown a small area of land near his homestead. In all cases where this has been done the returns have been almost miraculous, fifty-fold being by no means uncommon. In many cases farms that had formerly not a drop of permanent water on them are now by aid of storage reservoirs among the most productive in their respective districts. The Boer has very seldom carital enough to do anything on a large scale, and in very out-of-the-way parts it may not be desirable to do anything on a very large scale-at any rate, till population has moved onward, and markets have been formed. But the country now being opened up by the new lines of railway is suitable for large works. The long stretch of undulating Karoo between Hex River and Beaufort West, the Ruggens of Graaff-Reinet, the dry plains of Cradock, and the better watered Queen's Town valleys, all have many sites where water could be stored and cereals grown. Under the new Act the Government advances money on extremely favourable terms, so that no farmer, who has a good site, can any longer claim the excuse of poverty for not improving his farm.

Hitherto, a great drawback to irrigation has been, that in most cases the land that would be affected belongs to more than one farm, and that even if the farmers have the ability and energy to agree to a scheme of improvement there is always some old conservative determined stare super antiquas vias (to stick in the old ruts) whose stolid obstructiveness hinders any improvement, however obvious. But now the Government has legalized the principle of association, the principle under which most of the great works of Italy and Spain have been made, and the stationary folk, if they hold less than onethird of the area of land affected, can no longer check the united efforts of the more enlightened.

I am, Sir, your obedient servant,

JOHN G. GAMBLE.

#### IRRIGATION AND WATER TRANSIT IN INDIA.

London, June 29th, 1877.

SIR,—You were so good as to admit a letter from me once on that subject of vital—I should say mortal—importance in India, "Irrigation

and Water Carriage."

The frightful famine in Madras recalls us all to it. When the Govern ment is obliged to feed one million and a half of our fellow-subjects—when these have been perishing, in spite of us, at the rate of 930 per 1,000 in the Relief Camps—when nearly half the population of villages have died in a month of "famine cholera," when men were not put on the Relief Works till they were too far reduced by starvation to do any real work—when their bullocks were all dead, so that their very means for raising the next crop were gone—we are fain to ask, What has Irrigation done for the Madras Presidency?

This question a report just issued by the Madras Irrigation and Canal Company, dated May 8, 1877, received at the India Office June 19,

answers for us, at least as to one district.

But first let us observe that there are at this time four districts which ought to have been, like the other twelve, overwhelmed by this terrible calamity, but three of which are not only entirely free from famine themselves, but are in the highest state of prosperity, having a large surplus to supply the famine districts; and the fourth, though not entirely relieved from famine, yet has a very considerable supply of grain.

What has made the difference between these three districts and those

which are under the dreadful sufferings of famine?

The Government irrigation works.

The three districts of Tanjore, Godavery, and Kistnah, instead of adding five millions more to starve, are pouring into the starving districts hundreds of thousands of tons of food.

Sir Arthur Cotton, the great master of the irrigation art, twenty-six years in charge of the public works in those very districts which are, in the heart of famine, supplying food, could tell us more about this.

It was the same in the Behar famine. The Sone works, while they were yet unfit to be opened, were made to water 160,000 acres, producing a crop worth £500,000 in the midst of dearth. The whole cost of the works was actually saved by a single crop, and thousands of people saved from death.

But to return to the fourth of the Madras districts referred to :-

This is Kurnool, N.W. of Madras in the very depths of the peninsula. This is the district watered by the Madras Irrigation Company, from the Toombuddra river. The works have cost £1,600,000, and are capable of watering 400,000 acres for two crops, or at the rate of £2 per acre of

crop. Then, also, the navigation would afford carriage at a nominal cost. The main canal alone, from Kurnooll to Cuddaph, is 190 miles in length. The officers are to sell the water at the price of twelve shillings an acre, worth to the purchaser f.z.

A missionary in the Godavery district told Sir Arthur Cotton that scores of times the people had gratefully said to him, "We never got the Godavery water on our lands till you Christians came here. Truly, the

greatest Raj is the English."

In Kurnool last year, however, as indeed before, the water was refused by the people during the main cultivating season; but, when the pressure of the famine began to be felt, they forgot all their difficulties, and asked urgently for water. By this time the supply was already beginning to be deficient, so that the canal could not be kept full. Nevertheless, let us see what was done by these works. I quote from the report above mentioned:—

"The total area that has been supplied with water is 91,000 acres. In addition to the satisfactory revenue thus realized by the company, the food crops raised by the canal have contributed materially to mitigate, in the districts of Kurnool and Cuddapah, the effects of the terrible calamity of drought to which these and other districts of Southern India have been and still are exposed. The money value given in the following statement of the grain grown under the canal is £940,000, none of which could have existed except for the irrigation supplied."

The works having cost f,1,600,000, two-thirds of the cost have thus

been saved by a single partial crop.

Let us resume our extracts from this important Report.

"October, 1876. Throughout the month not a drop of water has been allowed to run to waste down the Pennair;" that is, the whole of it has been used for irrigation. "In another fortnight or so all the accessible dry land for which water is desired will have had a first flooding."

Again: "Applications for water have been very numerous, and from all sorts of places, far beyond the reach of canal water. . . . We are also much hindered by the quarrelling among the ryots themselves as to

who shall first have the water."

In November, it is reported: "The most bigoted of the old ryots are now quarrelling and fighting for the water. The old prejudice is entirely broken down, and, as a Curnam expressed it, 'They (the ryots) have come to their senses about the water.'

The sight of the country commanded by the canal is truly refreshing. In one village above Canalla I rode through tall cholum-fields for a mile or two. There more than three square miles of land were saved from utter drought, and about 300 acres of rice were just ripening. It is very sad to compare this with the rest of the district, where utter failure has occurred, and I regret to say cholera is rapidly increasing."

How we wish that the *Illustrated London News* would give us two of its admirable views—first of the desert, and then of the irrigated land, often

seen side by side! Misery and plenty, starvation and comfort.

Again: "All the crops are reported in good condition, both dry and wet. The former, sown under the canal, are acknowledged by the ryots themselves to be in as fine and healthy condition as any crops they have

ever sown. . . . Of the thirteen Government tanks commanded by the canal, five were filled before the end of the month, and the remainder will be filled before the middle of next month."

For December, the chief engineer reports in January, 1877, "The

result of my calculation is :-

"In Cuddapah district, 19,050,000 lb. food grain.
"In Kurnool , 65,240,000 lb. ,,

"Total 84,290,000 lb.

"Enough to feed the whole district of a million inhabitants for two months, and probably the straw will be enough to maintain all the cattle not yet perished in the villages under the canal. In this calculation vegetables are not reckoned as being any substitute for food grain, whereas they do, in fact, often save grain -e.g., sweet potatoes, crinjals, pumpkins, &c.

"This grain, at present prices, is worth (700,000; and, if the value of vegetables, indigo, cotton, and straw be added, the actual value of the crop created by the canal cannot be more nearly estimated than as one million sterling. But its value in helping the district to tide over the critical month of May, and in supplying village wells with good water, can only be poorly represented by such an estimate.

"The actual saving to Government by the provision in the least accessible parts of the district of such a food supply, which would other

wise have had to be brought, is about £500,000. . . . .

"The Government are now feeding at Imperial expense a third of the population of Kurnool district. This could scarcely have happened had the ryots not sacrificed the whole of the first crop, which the canal might have matured by irrigating their fields and filling their tanks. This infatuation, fortunately, did not extend to the second crop, about a quarter of which will have been reared under the already failing water supply of the Toombuddra."

Again: "It is probable that the ryots, under the canal, will save most of their cattle, and thus be able to resume their work on the first appear-

ance of rain.

"Elsewhere in the district it is probable that much land will be idle, as nearly all the cattle will be dead. The sale of bullocks in Kurnool has been so great that the coolies find it cheaper to buy meat than grain, a bullock selling for three rupees."

Again: "The villagers under the canal may be considered to be in a

very prosperous condition, the crops being very good indeed."

In January of this year "the overseer reports that the white cholum sown in Prattacotta is magnificent. I have never seen finer fields of this dry crop than those of Banakercherla and Vempeuta. The ears were so full and the plants so thickly grown that they were touching one another."

Again: "The average yield per acre of paddy is two putties, which is above that of the preceding season. This putty has been recently sold at forty-eight rupees. The straw is almost half as valuable as the

grain."

Thus the whole value of the crop is about 140 rupees, while the charge for water is six rupees, and the total cost of the works is only £3 per acre.

In February it is reported, "The wet crops, more particularly in the Cuddapah and Prodatoor Talooks, are the finest that have been reaped."

In March it is "estimated that nearly seventy million pounds of food grain have been grown under the canal in three talooks. This is sufficient to preserve one quarter of the population of the Kurnool district for six months, and to feed more than 8,000 pair of bullocks. There can be no doubt that, if the water were properly and timely taken, and with the same cagerness that was displayed this season, when it was too late, the grain grown under the canal in the Kurnool district would feed the whole population (amounting to nearly a million) for twelve months, even if no crops were raised except from canal irrigation."

Again, in March:—"There is little doubt that the canal water affects the health of the people considerably. When procurable, canal water is always preferred to well water; some villagers are in the habit of going a distance of two miles for it. While in camp I was unable to find a well in any village containing water fit to drink. In one place, though greatly in need of a draught of water, I was compelled to abstain from

drinking any of the water of three wells, as the taste was filthy."

Thus far our quotations.

Have these things no bearing upon the famine?

Sir Arthur Cotton has repeatedly pressed upon the authorities, both in India and at home, the necessity of providing for these famines, whenever the failure of the monsoon made such a calamity certain, by marking out an important work of irrigation or navigation, erecting shelter, and collecting food and tools beforehand—so that, as soon as the pressure of the famine is felt, well-organized parties may be set to work at once, and before they are reduced to a state unfit for work. Now, their ribs must show the signal for them to be on the relief works.

There is always time for this, but it has never been done. The consequence is, almost the whole of the money expended is lost. Whereas a famine is, in fact, the opportunity of executing in a single season im-

portant works to raise India for ever out of its present poverty.

Hitherto, without exception, not a finger has been moved till the people were actually dying, and then it was too late to organize works effectually. What might not the millions that the last two famines will

have cost have done to make famine impossible?

In Mr. Monier Williams's letter to the *Times* from Madura, Dec. 28, he says:—"All the belts of land reached by the grand system of irrigation which stretches between the Godavery, Kistnah, and Cauvery rivers—fertilizing the soil wherever it penetrates, and forcing even haters of the English rule to admit that no other Raj has ever conferred on India such benefits—present a marvellous contrast to the immense tracts of arid waste which meet the eye of the traveller as he journeys by the Great Indian Peninsula, Madras, and South India Railways.

Here are two subjects for the Illustrated London News. "Look here

upon this picture, and on this."

Had half a million more acres been irrigated in each of these districts, and had they been put in effective communication with the rest of India by steam-boat canals, which would have admitted of all India being laid under contribution for food, the famine would have been nothing comparatively. And had the comparative few who would then have had to

be fed been employed on further great works, the famine would have been

a source of plenty.

"General Strachey said, on May 18, at the Royal Institution:—'We must be content to pass through a condition of periodical suffering of an acute kind, during which . . . ways of escape from these evils will be gradually perfected. These ways of escape are, indeed, already sufficiently evident, and, so far as they have been hitherto applied, have been found to be thoroughly efficacious. They are the provision of artificial irrigation, and of improved means of transport.' . . . And he has 'passed a large part of his life in seeking for the means of extending those essential material allies in the battle of Indian life.'"

As regards Bengal, an Act is being prepared for a compulsory water rate in Bengal, which though stopped at present, will be carried through, if

possible.

It is estimated that the landowners benefit to the extent of two rupees an acre from the irrigation works, even when they do not use the water, through the embanking of the rivers, the drainage of the land, &c. If they pay those two rupees, then they will have the water for nothing.

In the Godavery and Tanjore, where the Tamil and Teloogoo people had sense enough to know their own interests, it was sufficient to give

them the water, and they took and used it.

But where the people are as stupid as some people in England who would not have factory laws, there is nothing for it but to make them have them. We see what the famine has done under the Toombuddra in forcing the poor people there to benefit themselves. Why should we wait for a famine to do this?

It is estimated that the lands in Orissa have actually increased in value three or four fold since the irrigation works without the water being used: the zemindars thus receiving the whole of the present profits of the works, while the Government have had the whole of the expense.

This year, as has been said, a crop in Kurnool is worth 140 rupees, or

twenty-four years of their water rate.

If all England could set her face against the Suez Canal we must not be surprised that there are other people almost as stolid. Another nation had to cut the Suez Canal for us, and thus force upon us such an incalculable benefit.

In England and Bengal you must take men as you find them, and force

blessings upon them.

So we thank God and take courage. We are really gaining ground.

FLORENCE NIGHTINGALE.

Sympathy.

'Twas all unspoken, undefin'd In look, or touch, or sigh,— A message flash'd from mind to mind, In answer to a cry.

A heart's lone cry, unheard among
The many gay ones there,
Where laughter rang, and songs were sung,
And—all unknown—sat Care.

Thou only mid'st the throng could see,
And thou alone could'st feel
The crushing load of misery,
One soul would fain conceal.

And how it came I cannot tell,—
And yet I seem to know,—
The dewy calm of ev'ning fell
On that soul's hidden woe.

Ah, surely thou had'st been with them,
To whom on earth 'tis giv'n,
To see the face and touch the hem
Of Him who reigns in Heav'n.

Enough: to raise one bruisèd reed, To lift from out the dust, One weary broken heart in need, And rouse to Hope and Trust

Is noblest work; aye may there be, In thy life-chalice fair, Nectar divine of sympathy, In answer to my pray'r.

### 3 Fortnight in Holland.

#### BY A CAPE COLONIST.

Holland (etymologically, Hollowland) is certainly, in many ways, the most wonderful country under the sun: it is unique. The ancient accounts of Holland represent it as an extensive swamp, alternately covered with and abandoned by the waters of the ocean: it has had a severe contest with the waves, which has ended in a great triumph for human industry, and in the country being brought into a high state of cultivation and comparative safety.

In this strange country the laws of nature are reversed; the sea being higher than the land; the lowest ground is twenty-four feet below high water mark, and, when the tide is driven high by the wind, thirty feet! Telford says "the total of the hydraulic works between the Dollart and the Schelde have been estimated by a com-

petent judge to have cost £ 300,000,000 sterling."

We crossed over to Holland from Harwich, and after tossing about for many hours in a very uncomfortable steamer, were informed that land was in sight. After straining our eyes for several minutes we at last managed to discover a strip of something or other, barely raised above the water. Coming closer we found ourselves entering the mouth of a river, the Maas, and, proceeding, passed on each side a wide level plain, with here and there a morass, here and there a line of willows planted with mathematical accuracy, and occasionally relieved by groups of picturesque-looking windmills. We had not been long in the country when we found that windmills formed a very important feature in the flat landscape. They are used for pumping out the great quantity of superfluous water. There are no less than 9,000 of these useful machines constantly at work in this extraordinary land, at an annual cost of 3,000,000 dollars.

We had not proceeded far up the river when, opposite the fortified town of Brielle, the custom-house officers came on board, fastened down the vessel's hold, and examined the ship's papers and the passengers' luggage. Here also we received our pilot. Higher up we passed Vlaardingen, the head-quarters of the Dutch Herring Fishery, for which it fits out annually from one hundred to one hundred and fifty vessels. The total number from the whole of Holland amounted to between three hundred and four hundred. It is said that a cargo of herrings usually sells for eight hundred florins. The first kegs of herrings (at the opening of the season) are sent to the King and his ministers. We also saw Schiedam, famous for its distil-

leries in the distance.

Rotterdam comes suddenly into sight at a turn of the river, and we were soon after safely moored alongside a very spacious quay, and amongst numerous other vessels of all sizes, shapes, and nationalities. On stepping ashore we had only to walk across the quay

to get to our hotel. Rotterdam presents a curious appearance to the stranger, with its wonderful combination of masts, housetops, and trees. The first thing that strikes one proceeding along the banks of a canal is observing the many small mirrors in the windows of nearly all the houses. They consist of two pieces of glass placed at an angle of 45° to each other, the one reflecting up, the other down the street. We were told that the object of this ingenious contrivance is to allow the inmates to observe what is taking place in the canal, or street, below, whilst sitting comfortably ensconced behind the blind, instead of having to go to the window. Rotterdam is eighteen miles from the sea, and situated on the right bank of the Maas. It is built on piles, and is a large and bustling city. Through the centre of the town passes an enormous dyke or dam, erected at the junction of a small stream, called the Rotte, with the Maas (hence the name Rotterdam). Everything is so picturesque; the peasants with their wooden sabots, and their blue and white costumes; the dogs harnessed to milk carts; the horses with their shoes like pattens, to prevent them from slipping on the paved quays, &c.; the quaint buildings, the busts of Turks, or the Moors' heads called Gapers (from their open mouths) in front of druggists' shops. The bronze statue of Erasmus standing on a broad bridge, over a canal, is one of the sights of the place. The house in which he was born still exists, and has been turned into a gin shop; it bears a small statue of the scholar with the inscription: "Hec est parva domus, magnus quâ natus Erasmus." The great church of St. Lawrence has no pretensions to architectural beauty, but it possesses a magnificent organ with 6,500 pipes, and is ninety feet high. Most of the canals are spanned by handsome iron balance bridges which afford easy communication between different parts of the town.

In our peregrinations we picked up some interesting bits of information. Amongst other things we discovered that—as was the custom here long ago—every Dutch lady has her vuur stoof, a square box, open at one side to admit an earthen pan filled with hot embers of turf and perforated at the top to allow the heat to ascend and warm the feet; it serves as a footstool. When sickness is in a house a paper is stuck upon the door containing the daily bulletin of the invalid's health, drawn up by the doctor, thus preventing the patient being disturbed by people coming to inquire. Before a traveller has been many days in Holland he will probably meet in the street a man dressed in black, with a cocked hat and wig, a long crape hatband, and a short cloak; he is called the Aanspreker, and his duty is, on the death of anyone, to announce the event to the friends or con-

nections of the deceased.

At the west end of the town is the new Park with beautifully laid out grounds. Military concerts are held on Wednesday evenings, and on Sundays at one o'clock in the afternoon. In the centre of the Park is a fine white marble statue of the poet, Merchant Tollens. We happened to be in Rotterdam on

a Saturday, and found the whole place being cleaned up after the week's work; at all the houses washing and scrubbing was vigorously proceeded with. In the environs of the town are some fine houses, with tastefully laid-out grounds; many of the houses were separated from the road by a small canal which was crossed by a pivot bridge so arranged that the house and grounds could be rendered inaccessible from the roadside.

Everywhere one sees the struggle the brave inhabitants must constantly wage against the ocean. Immense dykes or ramparts with foundations of one hundred and twenty to one hundred and fifty feet in width, are raised along the coast to keep out the waves, and so lofty as to bid defiance to inundations at high tide: the upper part of the dyke is covered with turf, and sometimes rises to the height of forty feet. The sum annually expended upon the repair of dykes amounts to nearly £600,000. A special body of engineers called Waterstaat are employed entirely in watching the state of the waters, and seeing that the works are in order. And not only have the inhabitants to fear the waters from without, but they are liable to internal inundations arising from the stopping of the rivers by the ice when the thaw sets in. Besides the ramparts above referred to, a long line of coast of several provinces is consolidated by no other means than reeds intermixed with straw wisps, or woven into mats.

The Hague (derived from 's Graven Hage, or Count's Hedge—it was a hunting seat of the Counts of Holland—surfounding the Park) is about an hour by train from Rotterdam. On our way to the Hague the train crossed many canals, some quite sixty feet broad. The rails in very many places were supported on piles. The country is highly cultivated; and where not so, it stretches into luxuriant pasturage covered with hundreds of fat cattle. The cows usually come into their winter quarters in November, and are put out to graze in May, if the weather is mild. When first the cows are let out into the meadows, a piece of coarse cloth is put over their loins, and tied round their bodies, to prevent the injurious effects of cold

dews and fogs.

The King of Holland lives at the Hague, in a very unpretending looking building, semi-circular, in shape and built in amongst the other houses. The late Queen lived in the Huis ten Bosch; the rooms are gorgeously fitted up, and the great circular Hall (used as a ball-room)—the Oranje Zaal—has its ceiling magnificently frescoed with Jordaen's chef d'œuvre—the Apotheosis of Prince Frederick Henry. The apartments which surround this hall are variously furnished, one with Chinese hangings, patterns, and ornaments; another with Japanese silk hangings, &c., each one unique. The Hague possesses some handsome squares lined with trees; the houses are lofty and substantially built. The streets are, as a rule, without pavements or lamps. A few canals intersect the town; and some statues of Kings and Princes are placed in the different squares. In the Binnenhof, or inner court of what was formerly the Count's

Palace, is an irregular building of various dates; the centre is the Hoog Geregtshof, a fine room with pointed roof. Upon a scaffold opposite the door, on a level with the top of the steps, the Grand Pensionary of Holland-Barneveld, was beheaded at the age of seventy-two, in the year 1618. In this inner court are also situated other official buildings where the States General, or Dutch Parliament meet. The two Chambers never sit at the same time, the first Chamber meeting when the second is in recess. enabled to be present at a debate in the second Chamber. proceedings vary considerably from these here, or in the House of Commons. No signs of approbation or the reverse are allowed, and the speaking was more of the conversational than the oratorical order. The members were allowed to stand and walk about all over the place. The President sat on a raised platform, under a green-baize canopy, and opposite the throne used by the King on the occasion of his opening or proroguing the Chamber. The President wore no distinguishing badge, and was supported right and left by secretaries. Opposite, and in front of the throne, on a level with the floor, sat the ministers at semi-circular green-baize desks. The members were called upon to speak by the President, who read their names from a list arranged beforehand. At each member's desk was placed a large wooden saucer filled with sand which is sprinkled over the writing by means of a large wooden spoon and serves the purpose of blotting paper. The first Chamber holds its deliberations in a building across the quadrangle from the second. We first inspected the room which the Lords formerly occupied, and greatly admired the fine frescoes and luxurious fittings. The apartment at present in use is small, and not nearly so comfortable as that inhabited by the other Chamber.

On our way out of the quadrangle we passed on our right an old gothic building, the oldest house in the Hague, and the only remaining fragment of the original palace of the Counts of Holland. In front of this building the brothers De Witt were brutally murdered by the mob in 1672, who dragged them from the prison—an old gate tower (Gevangen poort) hard by. In this latter place may be seen some hideous instruments of torture used in the "good old times."

The Museum and Picture Gallery in the "Mauritz Huis" (built by Prince Maurice of Nassau), are well worth a visit. In the Picture Gallery there are some fine specimens of the works of the Dutch masters. Of course, Paul Potter is facile princeps with his famous picture of "The Bull" (valued at £5,000). Rembrandt's well-known "Lesson in Anatomy"; a very pleasing picture of a woman sitting near a window, with a child in a cradle, by Gerard Douw; "A Man with a Hawk," by Holbein; Ruben's "TwoWives"; Wouverman's "Hay Cart"; and productions by Snyders, Teniers, Van Dyk, and A. van de Velde are some of the gems of the exhibition. The museum contains curiosities from China, Japan, and the

Dutch Colonies; also some historical relics. Among other Chinese curiosities there are some visiting cards two feet square! The deities of China and Japan, in porcelain, &c., are well represented; there are also pretty silk dresses, and curious boxes, trays, tea chests, and Japanese weapons and armour, &c. Amongst the historical relics, we were interested in seeing the armour of Admirals De Ruiter and Von Tromp with the marks of bullets; Barneveld's chair used by him in prison; the shirt and waistcoat worn by William III. the last three days of his life; the dress of William Prince of Orange, worn by him on the day when he was murdered at Delft by Balthazar Gerard. It is a plain grey leathern doublet, sprinkled with blood, pierced by the balls, and showing the marks of the powder. By the side of it is the pistol used by the assassin and two of the fatal bullets. The Royal Library and the collection of gems and medals are in the same building and well worthy a visit.

The suburbs of the Hague are very pretty, as indeed are the suburbs of all the towns in Holland. Beautiful country seats and pleasure gardens abound everywhere. At the end of the garden, overlooking the highroad or canal, is the pretty summer-house. Here the men smoke their pipes and sip their beer, coffee, or tea, and the ladies busy themselves with their fancywork. Some of the larger gardens abound with fruits and vegetables, and beds and borders of flowering shrubs and plants are laid out in all sorts of grotesque shapes. An air of comfort pervades the pretty villas. Most of them

are gaily painted, and everything looks neat and bright.

Going to Leyden (a short journey from the Hague), we crossed the Rhine by a timber bridge with five openings, one of which is furnished with sliding platforms in order to allow vessels to pass. The Leyden Railway Station stands on such bad ground that it was found necessary to construct a raft, placed upon oak piles, to receive the foundations of the building. The great promenade at Leyden is by the side of the Rhine, and shaded by a double row of trees. The University dates from the time of the siege in 1573-4. The Prince of Orange, with a view of rewarding the citizens for their bravery, gave them the choice of two privileges-either an exemption from certain taxes, or a University, and they, very much to their credit, chose the latter. It at one time went by the name of the "Athens of the West." Among its many distinguished professors and scholars were Grotius, and Descartes, Dalmatius, Scaliger, and Boerhaave; many celebrated Englishmen also studied here. At present there are only law students attending the University to the number of four hundred. From an architectural point of view the University building is decidedly plain; its senate hall is small, with the walls crowded with the portraits of one hundred professors. The wall by the side of the wide stairs leading to the Senate hall is covered with an exceedingly clever crayon caricature, by a student, of a fresh man's career from his first quitting the paternal roof, to the time of leaving his Alma Mater. The Town Hall is a quaint

old building, and contains some good pictures by Van Schooten, &c. The Museum of Natural History is very fine, and contains specimens of the productions of the East, Java, Japan, the Cape, &c. Then there is the Egyptain Museum containing interesting monuments, a monolithic temple cut out of a single huge rock of red granite, sarcophagi, mummies, ornaments in gold and precious stones. The Japanese collection is magnificent, and contains everything illustrative of their mode of life.

Rembrandt, Gerard Douw, W. van de Velde, &c., were born here; as were the famous printers, the brothers Elzeirrs—known by the editions of the classics bearing their name and printed at Leyden.

Haarlem is about an hour by rail from Leyden (the rails are laid on fascines or faggots), and the journey is a pleasant one, the train passing many fine country seats. There is a long street from the station at Haarlem going through the town, and leading past the market place and the great church—the only object of interest in the place. The organ in the church of St. Bavon is one of the largest in the world; it was built in 1738, has five thousand pipes, and the greatest metal pipe is fifteen inches in diameter. The interior of the church itself is lofty; the rood screen fine, and is of wood and brass, ornamented with curious grotesque figures. In one of the walls a cannon ball still remains fixed, a souvenir of the Spaniards in 1572. The monuments and decorations have been terribly cut up and destroyed by the French, who turned the beautiful choir into stables, and themselves inhabited the nave. The Stadhuis is an edifice older than the siege. It contains some good pictures by Frank Hals.

The approach to Amsterdam is announced by a perfect colony of windmills. The country round the capital of the Netherlands is very flat and decidedly watery, with many dykes and sluices to keep the sea at a respectful distance. In case of an invasion the city and environs could be inundated in a very short time. Amsterdam, like Rotterdam, is built on piles, and is intersected by a great many canals. The streets are very noisy, busy, and dirty. The Palace is a handsome stone building, built on 13,659 piles driven seventy feet into the sand: it cost the country two-and-a-half millions. The interior has rather a shabby look about it, probably owing to the furniture being hidden in seedy coverings, as the place is hardly ever occupied, the King preferring to live at the Hague. The grand hall, one hundred and twenty feet long, fifty-seven feet wide, and one hundred feet high, has been used as a ball-room, and is very fine with its white Italian marble pillars. There are four great canals running through the city, and about seventy small ones; of the former the widest is one hundred and forty feet, and called the Keizers Gracht, and the longest two miles; they are lined with handsome houses. The seventy small canals divide the town into ninety islands and are traversed by two hundred and fifty bridges. The repair of bridges, cleansing and clearing canals, and reparing dykes in Amsterdam alone amounts to several thousand guilders daily. The place has a most

striking appearance, and reminds one somewhat of Venice, except that the houses are all of brick, and the canals are lined with quays. Some of the houses present a strange appearance, bowing forward or leaning backwards, from subsidence in their foundations. Stadhuis, or Town Hall contains good pictures-portraits of burgomasters and citizens of Amsterdam, by Van der Helst, Frans Hals, &c. The New Exchange built in 1845 is a handsome edifice in front of the palace. Its construction was a work of great difficulty owing to the looseness of the soil, a mere turbary or bog, which caused the foundations to give way. The Oude Kerk has three fine windows of painted glass, executed between 1549 and 1648. It possesses a good organ. The Nieuwe Kerk (built in 1408) is one of the handsomest churches in Holland. It has a beautiful open screen of brass. Amongst many public monuments it contains one to Admiral de Ruiter. He is styled, in his somewhat pompous epitaph "imomensi tremor Oceani." The pulpit is splendidly carved and

dates from 1649.

The Picture-Gallery contains chefs-d'œuvre of the Dutch school. Many of the pictures are attached to shutters, which admit of being drawn forward upon hinges in order that they may be seen under the most favourable lights. "The Banquet of the Archers" by Van der Helst, representing the city guard of Amsterdam met to celebrate the Treaty of Münster, 1648, is a picture of a most interesting kind; the figures, twenty-five in number, are portraits, and Sir Joshua Reynolds says "this is, perhaps, the finest picture of portraits in the world, comprehending more of these qualities which make a perfect portrait than any other I have ever seen. They are correctly drawn, both head and figure, and well coloured, and have a great variety of action, characters and countenances; and those so lively and truly expressing what they are about, that the spectator has nothing to wish for." The Pensionary, John de Witt, embarking on board of the fleet in 1665 by Backhuysen, is excellent; so is Gerard Douw's "The Evening School," in which the effect of candlelight is wonderfully portrayed. No less than five different lights are introduced into the picture, and variously thrown upon the twelve figures which compose it. Hondekoeter's "Floating Feather," in which a Pelican is introduced with ducks swimming, - of its class, probably unequalled in the world. "A Bear Hunt," by Paul Potter, one of the few paintings by this master in which the figures are as large as life. Rembrandt's "Night Watch" probably represents a company of Archers, with their leader, Captain Kok, going out to shoot at the butts. It bears the date of 1642 upon it. Then there are some fine pictures by Teniers, Terburg, A. Van der Veuw; portraits of the children of Charles I. by Van Dyk; a Stag Hunt by Wouvermans in his best manner; and a number of minor productions. The Museum contains one of the most remarkable collections of prints in Europe, particularly rich in the Dutch and Flemish masters, formed by Mr. Van Leyden, and purchased by Louis Buonaparte, King of Vol. XV.

Holland. It occupies two hundred portfolios. There are several

first-rate private collections of pictures in Amsterdam.

Amsterdam is remarkable for the number and extensive bounty of its charitable institutions, which it supports, for the most part, by the voluntary contributions of its benevolent citizens. There are no fewer than twenty-three of these institutions. Begging is forbidden, and is severely punished.

The promenades of the city are the *plantaudje*, or plantation, surrounded by canals, and the Zoological Gardens. The latter is generally frequented on Sunday afternoons and Wednesday evenings. A portion of the poorer inhabitants live entirely in the cellars of the houses; and there is also a class who live constantly upon the

canals, making their vessels their homes.

The Harbour and the Quay are well worthy a visit, and give the stranger a good idea of the great trade carried on with other countries.

In the latter part of the thirteenth century, Amsterdam was only a cluster of fishermen's huts, in a salt marsh. Its great advance in wealth and importance took place in the sixteenth century. The art of cutting diamonds was for a long time confined to the Jews of this city and Antwerp It is supposed not to have been known to Europe earlier than the fifteenth century. The diamond mills are worked by steam engines, setting in motion a number of small wheels, whose cogs, acting on regular metal plates, cause them to revolve 2,000 times in a minute. Pulverised diamond is placed on these; and the stone to be polished, fastened in a metal cap, by means of an amalgam of zinc and quicksilver, is submitted to the friction of the adamantine particles. Each wheel can operate on four stones at once. In order to cut the diamond, diamond-dust is fixed on metal wire that is moved rapidly backwards and forward over the stone to be cut. Each perfect stone has sixty-four facets, each rose thirty-two.

In traversing the harbour long rows of little pavilions raised upon wooden piers, are remarked, stretching far out from shore, several feet above the water. These are summer-houses belonging to the citizens, the owners of pleasure boats, who usually come here and

smoke their pipes and sip their wine, beer, or coffee.

Utrecht is twenty-two miles from Amsterdam, and is reached in an hour by train. On approaching the former place there are various indications that the traveller is about to bid adieu to the flat land; the country presents partial undulations, and a slight current becomes perceptible in the canals. From the tower of the Cathedral, St. Martin, three hundred and twenty-one feet high, seventy feet square at the base, a splendid view of nearly all Holland is obtained! The University close to the Cathedral, founded in 1636, has about four hundred and fifty students, the greater number belonging to the aristocracy. The Mint of Holland is situated here. The ramparts round the city have been transformed into Boulevards, and form a most agreeable promenade.

The Mall, called Maliebaan, is a magnificent avenue of six rows of lime trees, half a mile in length on the east side of the city. It was saved from being cut down by the express commands of Louis XIV. at a time when his army spared nothing else in Holland. There is a considerable descent from the houses to the surface of the river on which Utrecht is situated, viz., the Old Rhine; or rather it is situated at the bifurcation of the branch of the Rhine called the Old Rhine and the Vecht. The cellars under the quays by the water side are inhabited, and are large enough to serve as store-houses amanufactories, their roof forming the pavement of the street above The country all about Utrecht is very fine; and there is a most delightful drive through an avenue of beech trees to Zeist, a Moravian settlement where there is a seminary for girls and boys.

Arnhem, the chief town of Guelderland, on the right bank of the Rhine, was once fortified, but its ramparts are now turned into walks. The neighbourhood abounds in villas, parks, and gardens, and beautiful trees; and it is remarkable for the abundance and purity of its flowing streams (the latter rather an uncommon phenomenon in

Holland).

The last town we visited was Zutphen, a strong fortress and ancient, grand-looking town. The chief Protestant Church of St. Walburga is a handsome gothic building, and from its tower a good view of the country may be obtained. There is a gothic font of copper and the bas reliefs on the pulpit are curious. There is a library of old books, annexed to the church, many of them fastened to the shelves by chains. It was on the battle-field of Warnsfeld, close to the town, that Sir Philip Sydney, with his troops, signally defeated the Spaniards, and was mortally wounded; and when he enacted that well-known instance of self-denial by desiring that the cup of water intended for him should be given to the dying soldier at his side.

The upper classes in Holland are extremely well educated. They are good linguists, and read English literature to a suprising extent; but French is the popular language. Some of their customs differ somewhat from ours, eg., the gentleman when meeting a lady in the streets always bows first—not, as with us, the lady. In church the men stand and lounge about, and keep their hats on if they choose. After dinner the gentlemen conduct the ladies to the drawing-room, and then return to the dining-room to smoke a cigar over their coffee.

Chimes or carillons, were invented in the low countries, and have been brought to great perfection. They are of two kinds: the one attached to a cylinder like the barrel of an organ (au tambour), which always repeats the same tunes, and is moved by machinery; the other of a superior kind played by a musician, with a set of keys (au clavecin). So fond are the Dutch of this kind of music that in some places the chimes appear scarcely to be at rest for ten minutes either by day or night. The tunes are usually changed every year.

Although Holland is so easily accessible, it is too often passed over by tourists in their haste to reach the picturesque scenes of the Rhine and Switzerland. The Netherlands have attractions peculiarly their own, and we would strongly advise intending travellers to pay it a visit; they will never have cause to regret having done so.

#### Answered.

Weary, with tired eyes that sought Some answer to a hopeless thought:
Sad, with remembrance of dead years,
That woke with the bright flush of morn,
But faded in a mist of tears
Before their promise could be born,—
I stood awhile upon the verge
Of a far-rolling sweep of sea,
Whose fading distance seemed to merge
Into the vast eternity.

The ghosts of things that had been dead,
Yet lived again:
The salt of tears was on my tongue:
The sound of bitter sobbing, wrung
From hearts which Joy had cursed and fled,
Was in my brain:
And from the main,
Borne on a sudden tremulous breath
Of air that chilled me as the touch of death,
Came an exceeding bitter cry,
As of a soul in mortal pain:
"All that is fair shall die."

I did not know it was my own:
So the gloom deepened: then there came,—
First in faint echoes from afar
That gathered, as an undertone,
In most hushed stillness, to one sound,—
The mention of an awful name:
And the same instant flashed around
The sudden glory of a risen star.

### The Philosophy of Method.

In this thoughtful and well-composed pamphlet, Dr. Dale addresses a wider and more cultivated audience than was assembled to listen to his address as Vice-President of the South African Philosopical Society in the hall of the Public Library. It is most appropriately dedicated to "Mrs. Jamison, of Cape Town, by whose munificent endowment the scientific enducation of our sons is largely promoted." object is to indicate the method, aim, and end of scientific inquiry, more especially to those who are now associated for the purpose of pursuing, discussing, and recording original researches and investigations in the new and unexplored fields around us. The extent of the domain open to such inquiry is very suggestively set forth—such as the natural history, physical condition, geography, languages, history, and traditions of South Africa; and those engaging in the work are wisely cautioned not to allow it to be fragmentary or spasmodic, but to prosecute it continuously and systematically, and always bearing in mind its practical outcome in relation to the development of the resources of the country and the material welfare of the people. In this latter connection, Dr. Dale gives a significant hint that the time has now come when the Legislature may, following the example of the United States, provide a higher educational machinery in the shape of an industrial university for the Cape colonists, with fully equipped departments of agriculture, natural science, botany, and engineering, where our young farmers can familiarize themselves with the chemistry of soils, the mysteries of drainage and plant culture, and with veterinary science and stockbreeding, and rural economy in general. By these agricultural schools, in fact, the farmer would be enabled "to understand all that man can know about soils, seeds, animal and vegetable life; about the influence of light, heat, moisture on his fields, his crops, and his stock; so that knowing the reasons for the processes which he uses, he may work intelligently for their improvement."

But, preparatory to the discussion of these economic aspects of research, the learned doctor, in order to stimulate colonial minds to enter upon original work, gives an able and exhaustive review of the paths leading to the "Temple of Knowledge," by contrasting the old method of speculative philosophy and the modern method of scientific research, dating the latter from the time of Roger Bacon and others, who insisted upon observation and experiment as the means of acquiring knowledge. Without repudiating authority in matters of religious faith, the way of science must ever be kept free, untrammelled by traditions or pre-judgments. "There is,"

<sup>\* &</sup>quot;The Philosophy of Method." A lecture by Langham Dale, M.A., Ll.D., Superintendent-General of Education, Vice-Chancellor of the University of the Cape of Good Hope, and Vice-President of the South African Philosophical Society. J. C. Juta, Cape Town, publisher to the University, 1877.

he observes, "a principle of freedom, and there is a principle of authority in theology and in science, and both so likely to overlap their respective bounds as to need mutual checks. The intellectual powers must have freedom in the investigation of natural phenomena, but must conform to the processes of rigid logical sequence, step by step; and the dicta of authority must be subjected to verification by unfailing tests." In a word, instead of starting with theories based on imperfect knowledge of facts, we must accurately record natural phenomena, and leave it to the highest intellects to reconcile seeming contradictions under a general law by patient induction of facts. Had our predecessors done this, from what a lot of ignorant

speculation they might have spared us!

"Perhaps nothing illustrates the deficiency of the old method of philosophical inquiry so vividly as the history of philosophy itself. The great heroes pass in review before us—Plato, Aristotle, Epicurus, Zeus, Descartes, Hobbes, Locke, Leibnitz, Berkeley, Hume, Reid, Kant, Fichte. What an absence of unity of purpose there is in the captains of the great fleet! they are circumnavigating the world of mind; but, as is said by one of themselves, all the captains are sailing on different tacks, under different orders, and with different winds. We may make every allowance for the various retarding causes of speculative science, as, for instance, those which are equally applicable to linguistic science, grammar, and jurisprudence, and are usually formulated in the words, that 'the things which are first in the order of nature are last in the order of knowledge; but, after all, the defect of metaphysical inquiries is in their method; it does not conform to the rules of a system of demonstrated truth.'

"Whether the inquiry starts from the investigation of our sensations, as the origin of our ideas, or of our ideas, as natural, universal, and necessary, and involved in the very constitution of the mind;—whether we maintain with the one school that the senses supply only contingent truths, that is, 'such as are found to be true only by observation,' or affirm with the other that also necessary truths, 'which are seen to be true by a pure act of thought,' are arrived at by experience, we find the same inherent faultiness of method, based on the assumption that the laws of the human mind can be generalized solely from the facts of individual consciousness; that is to say, from the philosopher studying the operations of his own mind, and neglecting the wider survey of external phenomena, as they are illustrated

in the thoughts, words, and deeds of mankind generally."

In these remarks Dr. Dale hopes to be released from any imputation of disregard for the study of ethics and the philosophy of mind generally, as elements of mental and moral culture. Neither in describing the method of speculative philosophy, or the method of scientific inquiry does he mean to encourage Realism and Materialism amongst the rising generation.

"Of the two elements, which constitute the real happiness of mankind, it cannot" he thinks "be denied that the moral which

concerns our domestic, social, and political duties is more influential than the intellectual, which concerns only our knowledge; and were it not for the fact that the Christian code is so closely interwoven with the very constitution of civilized society, we might anticipate that the progress of positive science would tend to disturb the balance between the intellectual powers and the moral feelings. Of course, there is no such progress or measureable advance in Morals, as in the fields of Natural Science; but so long as the standard of human actions is regulated by the code of Christian ethics, what we look for and hope for is, that increase of knowledge will proportionately augment the receptivity of the mind for that which we feel to be the purest, completest, and highest system of morality; so that intellectual power will go hand in hand with moral excellence and the equilibrium of the mental economy will be maintained."

We can clench the force of this extract by quoting from the "Wayside Thoughts" of Darcy W. Thompson something of the same belief in the purity of motive which inspires scientific observers to think more of the teaching desirable from the study of God's works than of the Hebraic precepts and finite conclusions contained in Holy Writ. "Here and there we meet with a man wrapt in a mantle of enviable bigotry, and hugging old, comfortable, but unwholesome beliefs; and no small number are to be found of men eager for change for change's own sake, foolishly ungrateful for a laborious past, and foolishly trustful in an untried future. In things religious, political, and social we are equally perplexed. . . . It is no time for rest; we must keep the lead heaving, and trust to a good look-out

ahead and Providence."

To keep this lead heaving, and take constant soundings in the ocean of truth, needs logical and methodical inquiry. We are not so much concerned with the mechanical perfection of the instruments employed in research as with the accuracy of the information obtained through their agency. All real knowledge must have a physical basis, and it is unphilosophical to trust to mere intuition or to speculation for our facts. With the acquisition of facts and the extension of real knowledge, we can generalize and induct with greater propriety than if we only went in for self-culture and studious reflection. In all probability nothing in nature is hidden away from our eyes; but we lack the intelligence to appreciate the full meaning and force of many things which now are mysteries too subtle for our understanding. Step by step we have to climb the successive hills and crags which bar us from the glimmering peak whence the whole world of knowledge can be surveyed in a glance. As we surmount each hill, another hill comes into sight, with many a valley and dark glen intervening, we have to struggle on manfully for fear of being lost in the clouds. Better thus to die in pursuit of the truth than to construct a map out of our inner consciousness while seated in our studies, and call it truth.

The motive, then, of philosophic methods of inquiry is to get at the meaning of everything that surrounds us in nature. "As the sphere or

discovery is enlarged, and results registered after verification, so the means of educating the mind must be expanded, the mutual action and reaction of education and scientific progress on each other being felt more and more." Thus the promotion of researches and investigations in new and unexplored fields cannot well be undertaken by any body of men, unless they have a common centre to which all their discoveries can be brought and carefully sifted; for, as Dr. Dale keenly remarks, "If we inherit the wealth amassed by the intellectual energies of our predecessors, our inheritance imposes an obligation, not only to train minds to digest the lessons of the past, but to push forward pioneers to open new roads into new domains; and it is peculiarly fitting that the inhabitants of South Africa, which is now becoming known as a land of great but undeveloped resources, should take a direct and active part in adding to the traditional stock of knowledge, especially in those departments of study, to the prosecution of which our singularly favourable position calls us, whilst it places unusual facilities at the same time within our reach.'

"For our own credit, as educated men, for our own intellectual and material progress, we are bound to promote a thorough and accurate knowledge of the geography of South Africa in its widest comprehension of the physical features of the country, its climate and productions, and generally the distribution of animal and vegetable life throughout the continent, as well as the river systems, with particular reference to the application of hydraulic science to irrigation, and the conservation of the water supply; and botany, too, with economic views as regards the pastoral pursuits of the people, so that effete pastures may be renovated by the introduction of such esculents as are best adapted to resist the long and periodic droughts. To these and many like matters, which have a direct practical bearing on the development of the resources of the country, should be added the comparative study of African languages, and the collection and collation of the traditionary lore of the aboriginal races; and the publication of State and other documents which bear upon the early history of this colony."

From this sketch it may be seen that the Philosophic Society will have a good deal of work cut out for it by its vice-president, if only one half of his programme be set going. From the admirable paper contributed by Professor MacOwen, to this Magazine, on the "Colonial Stock-Food Plants," it is clear that we have, at least, one inquirer in our midst who is capable of doing good yeoman service to this Colony, by acting in conjunction with Dr. Hahn, the Jamisonian Professor of Chemistry in the South African College, and giving us a clear analysis of our plants and soils and the relation they bear to one another in the raising of stock and grain. If report is correct, the Government proposes to apply the old "Drostdy House" and grounds attached to it at Worcester, for the establishment of an agricultural college, where the rising generation of farmers can get a practical insight into the workings of science, and the

bearings of animal physiology and agricultural chemistry on their future prosperity and enrichment, after leaving this industrial hive.

In concluding our necessarily brief notice of this very suggestive phamplet, we will make a final extract from the remarks in its closing pages on the true import of culture; they are admirable in tone, and eloquently expressed:—

"Science moves, but slowly, slowly; creeping on from point to point."
Though we may be ever reaping something new, what men have done is but the earnest of what they will do. The harvest is not yet; the great

ingathering of fruits awaits our children's children.

Now, all this may sound discouraging to those who in the toilsome struggle for life find no opportunities for the acquisition of knowledge by personal research and observation. Let us, however, look first at what duty requires of us, and if the fields of Natural Science lie beyond your ken, you can at least promote self-culture by cherishing a love for what is morally good and true and naturally beautiful; by cultivating those tastes which chasten and adorn life, and minister so largely to human refinement and true happiness,

And what is Culture? Is there nothing better in us than the mere desire to get food and raiment, the means of sustaining animal life? Is there no fancy, no fire of imagination, no perception of the beautiful and the sublime? no chivalry, no heroism, no carnest aspiration? Can men rise no higher than the grinding toil of daily life, "the trivial round, the

common task?"

Yes! to the soul of culture there is a thrilling delight in catching the influence of the word-painting of the poet, in the rapt contemplation and study of the sculptured memorials of the chisel, of the rich mellowed effects of the painter's brush. Every brook that murmers, every sundeckt cloud, every tint that warms the mountain-heights, is a thing of joy to the educated man, who has been trained to—

Find tongues in trees, books in the running brooks, Sermons in stones, and good in everything.

Life may appear but an unlit path to those whose higher powers are undeveloped; but culture will so spiritualize our existence that—

. . . The meanest flower that blows will give Thoughts that too often lie too deep for tears.

And again, the enthusiasm of humanity is no day-dream; it protests against that emaciated morality which is made up of negative qualities; it brings æsthetic, emotional, humanizing enjoyments; our mutual intercourse becomes full of active, elevating influences, sympathy in sorrow and in joy, keen interchange of bright thoughts and joyous hopes, generous impulses, broad-hearted charity, deeds of mercy that is twice-blest, and the imitation of the Christ-like life.

All this is Culture. Seek it in Nature; seek it in the garden; in the studio, in pictutes, in books; in the graces and amenities of social life; in the voiceless communings that each one holds with his own monitor; in the philanthropic atmosphere of Christian practice; in going about

doing good.

View the world from this higher stand-point of a cultivated mind, and you dignify the toil of your hands by making them minister to the diviner elements within us.

## The Frontier Ermed and Mounted Police.

THE events on the Frontier which, in the first week of August, caused a sudden change in His Excellency the Governor's route from Fort Beaufort to King William's Town, have given us a practical illustration of the uses to which our miniature army would be put in case of a rising of any of the Kafir tribes, between the extreme points of Port Stepstone and Port Nolloth. A small force of fewer than four hundred men, in two detachments, some distance apart, were stationed to overawe, and did overawe, more than ten times their number of armed and mutually-infuriated natives. however, we cordially admire this fresh instance of British pluck, and might be loud and long in our praises of Cobden's theory of moral force, as there illustrated, we think these possible hysterics of delight may well give place to an attempt at a calmer estimate of the capabilities of the force, and of its fitness to do the work which it was organized to do. That work undoubtedly was to prevent, in the first place, the spilling of human blood-whether our own, our allies', or our neighbours'. So far the work has been done, for during the dozen years the force has existed we scarcely remember an instance in which it has had any serious work to do. It is still a virgin force with its spurs to win. It has, undoubtedly, exerted a powerful curb upon the war party of young Kafirland; and more than once, we believe, saved the Eastern Districts of the Colony from the ravages of war, and it has done this without the firing of a single shot in anger, and merely by repeated exhibitions of self-restraint and preparedness. The truth is, that the imagination of the sons of Ishmael among whom we dwell-for such we believe them to behas been completely dominated by the idea of what Englishmen would do, and could do, if once their blood was up. It is the fact of the identity of race which here asserts itself, for the present police has as yet done actively nothing in the field; and it is by a transference to them, through a subtle mental process, of which the subjects are themselves unconscious, of the deeds of British burghers and British soldiers in the wars of 1846 and 1851 that they have gained that moral ascendency over the native mind which the affair at Butterworth the other day illustrated.

It is proverbially a dangerous thing to trade with borrowed capital—and nowhere more so than in matters of national honour and national existence. Yet this is what we are doing, and what we are rightly desirious of doing for many a year to come. We do not want our police-commandant to emulate the deeds of Sir Harry Smith, or even those of Sir George Cathcart. Our policy is emphatically a peace policy. We will not, metaphorically, even show our teeth unless we are compelled to do so. We prefer, for a thousand reasons, to live at peace with our neighbours along the Border. But there are, as Ruskin has ingeniously pointed out, two ways of maintaining peace. One way is as Gideon sought

it when he built his altar of defiance in Ophrah, naming it "God send peace," and "the country was in quietness forty years in the the days of Gideon." The other way of seeking peace is as Menahem sought it, when he gave the King of Assyria a thousand talants of silver that "his hand might be with him." That is, we may either win our peace or buy it. Win it by such a readiness for war as that our possible enemies may know that they have but to throw down the gage of war for it to be instantly taken up; or, buy it by concession after concession till we shall have frittered away the vast heritage of fame and prestige which has been left us by the laying down of the lives of such men as Colonel Fordyce, and a thousand

others as good and true. We have spoken of the effect of memory and imagination upon the Kafir mind in maintaining the authority and dignity of the Crown and Sceptre of England in these lands. It is well to remember in this connection that one generation goeth and another cometh, and that the impression left by former wars and victories will grow dimmer and fainter. The old tales will be less frequently told by Kafirland firesides, and the last actors in them will soon have passed away. Hence the ever-increasing danger of native insolence and disturbance. The "moral force" by which Captain Robinson and Inspector Chalmers with their two handfuls of men kept the Galekas and Fingoes in such grim restraint but a few days ago, will inevitably tend to wear itself out. Such "force" potent as it now is may be as easily dissipated as a mist upon the mountain's side. For it is but the adumbra of "that last arbitrament of kings," the sword; and if the sword hesitate when it is touched, or strikes but cowardly, the word "craven" rises to the lips, and massacre begins. In war, especially in war with semi-civilized races, it is the first blow that tells. Let that be feeble or disastrous and the savage rises as from a night-mare and scorns the phantom by which he has been kept down.

A thousand or twelve hundred men, such as we can picture, would well be guard enough for our dignity and peace. But then there must be not one feeble man among them. Theirs is the post of honour, the van; and the indiscretion or cowardice of a dispatch orderly or a horse guard might suffice to set the country in a blaze.

If we were to tell the pleasant vision that floats before us, it would be of a corps every man of whom would be an armed Centaur. Our ideal policeman should have but two properties, a horse and a gun; both of them as good as the country can produce and the Government afford, and each of them perfectly under the owner's command. What a man with a horse under him and a rifle alongside of him can do, that our model policeman should be able to do,—whether it be to put successive bullets into a tree "blaze" fave hundred yards off, with his rifle resting, it may be, across his saddle, or to find his way by night through Pluto's Vale without the deviation of a yard or the loss of ten minutes. As a rider he should be a Mexican for

courage and ability, and a Cossack for the patient tenderness with which he cares for his horse; and as a rifleman he should have that intimate acquaintance with what his carbine can do, that springs from unlimited leisure and innumerable ball-cartridges. Ecomony in the use of powder and shot is false economy indeed, and one that, we would hope, is confined to the ex-employees of our railway works, who after buying guns innumerable and so vexing the souls of the Queen's Town citizens, are said never to waste a shot in ball-

practice or bottle shooting. It would perhaps be too much to suppose that our present police force is up to anything like this degree of efficiency. It cannot be so, for it suffers from the disease of newness. The force itself is a new one, and the men serving in it are, five-sixths of them, either in their first or second year of service. Not one in twenty of them is a re-engaged man, which means that when a man is just emerging from "yobism," he takes his discharge and sells his horse and accourtements to some other member of the great family of tinkers, tailors, soldiers, sailors, apothecaries, and gentlemen, and retires from a service in which he was just beginning to be reliable. But this is an evil which will in part repair itself, and which, so far as it remains unreformed and ineradicable, may be turned to good account. For next to Mr. Froude's suggestion of "Child-immigration," we do not know of any material so suitable for filling up the ranks of our meagre population as these same ex-policemen. They have been three years in the colony, during which time their constitutions will have become acclimatized, they will have learned to ride, and will have seen something of the country, they will have made a few colonial friends, and perhaps picked up a little Dutch and Kafir. Many of them have trades, some of them professions, and nearly all of them have a hankering for a farmer's life, which has been strengthened by the freedom and comparative unrestraint in which they have been living. We think the day is not far distant when these elements of character shall be seized and utilized by our Colonial Legislature as a great step toward the solution of two of the most pressing wants of the day-a cheap defence force and a constant stream of suitable (i.e., well-brayed) emigrants. All that is needed is the appointment of some good medium of inter-communication between the men about to leave the force, and the general public outside. As a rule a discharged policeman leaves the force with just enough money to pay his passage back to England. His horse, saddle, and bridle, fetch perhaps thirty pounds. If this money is spent idling about hotels and lodging houses, waiting, Micawber-like, "for something to turn up," the poor fellow feels that he will be compelled to stop in the country nolens volens. So, sure of a welcome from his brothers and sisters, he takes the first steamer homeward bound, brim-full of wonderful stories as to the hardships he has endured, and the Kafirs he has shot!

If, on the other hand, there were the typical good clergyman at

hand to give him the "word in season" as to the best thing to do, he would probably settle in the country, and might in time, like father J-, of Sidbury, count up his seventy-sixth grandchild, with

the prospect of living to see the hundredth!

Whether, however, the country possesses a man with the willingness to act as chaplain and immigration agent, and the requisite tact and experience to do them both well, is a question for Commandant Griffith and Mr. Molteno to settle. We simply suggest the creation of such an appointment from a lower and more material point of view than perhaps many of our readers would be inclined to take.

There are many other questions as to the police force which press for consideration, and which perhaps have been considered in the Report of the Defence Commission—a report which, pardon me, I do not mean to read or to refer to. In place of that allow me to append the following illustrative anecdotes of Kafir warfare, quoted from the life and letters of Robertson, of Brighton, -anecdotes which show more vividly than whole reams of argument the nature of the enemy with which our police would have to cope in case of an outbreak of war. Seeing which, let them prepare accordingly: -

I had a long conversation with Captain H—about the Cape, where he has been recently quartered and engaged with the Kafirs, whom he represents as nearer to animal existence than anything he ever saw. They seem as lithe as serpents, and as capable of concealing themselves from observation on almost bare ground as a hare. On one occasion they came suddenly on a party of them sitting round a fire at breakfast. A Fingo gave the alarm, and in a moment the Kafirs threw themselves on all-fours on the ground, and glided in all directions through the embers and bushes, so swiftly and tortuously that, though he put up his rifle and is a first-rate shot, he could not cover one of them, but was obliged to give it up and bring his rifle down. He knew those officers of whose interception and murder you may remember the account in the papers some time ago. They were out foraging on ground so bare of grass, that though he rode over it an hour or two afterwards, he could see no place where a man could hide himself. On their return 400 or 500 Kafirs, through the very midst of whom they must have ridden, suddenly started up and cut them off. They rode for their lives, and would have escaped, but that the horse of one, named Chetwynd, fell, upon which the others stopped, dismounted, and stood back to back, and being all armed with double-barrelled guns, sold their lives dearly. Seven Kafirs were found dead, and others were carried off. Of themselves there were only five. They were soon overwhelmed with assagais; one was found pinned to the ground with an assagai through his cheek; another, who fought most desperately, was seized, and, as an honour, carried some yards off to a large stone, on which his head was cut off; the skull is now in the possession of a Kafir chief in the form of a drinking-bowl. They paid, however, dearly for their success, for they were pursued, and 200 of them hemmed in in the bush. The soldiers gave no quarter, and every one was cut to pieces.

On another occasion, while H--- and some of his men were at breakfast, a soldier exclaimed, and on looking up he saw a Kafir within twenty yards of him, on a knoll of ground, in the act of hurling his assegai. He stooped under a rock, and the assegai glanced over the point of it, and remained buried in the ground so close to a sergeant that the quivering end struck him. Looking up again he saw the Kafir stamping with rage at having missed. They rushed after him, as he was just at the end of a very narrow bush or belt of wood. H--- sent twelve men each side of it to run down as fast as they could, and when he judged that they had outrun the Kafir, who must be impeded by the trees, ordered them to turn, enter the bush, meet, and drawing a line across it, beat every foot regularly back to the point at which the Kafir disappeared, as you would draw a cover for a fox. As he stood leaning on his rifle, expecting to hear the cry of discovery, and shots, he saw slowly rising, within three yards of him, the Kafir's black head and glittering eyes. He remained transfixed and fascinated for several minutes, the Kafir glaring at him, and he not daring to raise his rifle, knowing that he would be off in a moment. However, his rifle went off by accident, and H ---, in a fury, struck at the Kafir with the butt-end with all his might. The stock broke, and the Kafir disappeared. Up came the men at the sound of the shot, and searched the place for an hour, in vain. He then went off, leaving three perdu behind at the spot where the savage had been seen. Scarcely had he got a quarter of a mile when three shots were heard—crack, crack! He ran back, and found that the Kafir had put up his head again, exactly in the same place, and again got off like the ghost of Hamlet's papa, not one being able to tell what had become of him.

I am going to dine with him again on Thursday, and shall hear more of these anecdotes. I do not know how it is, but they rouse me more than anything of our civilized life. I do not mean this last story, for the poor wretch deserved to get off, and I should not like that kind of work. But the risk and excitement are more real than the being badgered by

old maids of both sexes in a place like Brighton.

I have this moment returned from dining with Captain H - and hearing a long account of Kafirland and incidents of Cape warfare. On the whole they are very horrible, and make war more a matter of shambles than it appears in books. The Kafirs torture all their prisoners. Our officers were tied up to the trees, and the young Kafirs practised at them with the assegal, the mothers looking on and clapping their hands at a good shot. Some were flayed alive, others burnt with hot sticks; then there is a bullock-goad, a specimen of which he showed me, a favourite instrument of torture. Horrible all this is, H-- said that they are not so ferocious as our English soldiers. A Kafir one day pointed to one of the men in a state of intoxication, and then significantly to himself, saying "You would make us like that." They treat our women too with delicate respect, which our men never imitate. H--- has seen a soldier deliberately place his musket to a woman's breast, that he might kill both herself and the child at her back with the same shot. The English officer, a subaltern, took no notice of this barbarity, and H-- was obliged to put him under arrest. Indeed, it seems that officers and men become brutalized there. He mentioned one Colonel, at whom a Kafir fired and singed his face. The Colonel knocked the Kafir down, strode over him and coolly took out his knife and jagged it across his throat, instead of stabbing or shooting him. From his account, I confess, I felt strongly on the side of the Kafirs.

They feel that they will become as degraded as Hottentots by being subject to the English. At present they do not drink, and have a much

finer sense of honour than the brutal soldier.

For a long time it was a mystery where the Kafirs got their arms and ammunition. At last, when the war was ended, the secret came out. Every captured musket had the Tower of London stamp upon it—that is, the condemned muskets, which are bought up by merchants, had been shipped off to the Cape and sold to the savages. Nor did they ever want powder; steamers were fitted out by dealers at the Cape, and sent up the shore with ammunition. Can you conceive selfishness and treason of a darker turpitude than this? And the Kafirs afterwards said, in Shylock's vein, "These be your Christian merchants!"

He showed me a number of coloured drawings, vividly representing Kafir life—one a very hideous but strangely fascinating one, in which an English officer, stripped to his shirt, is kneeling in the hands of the torturer, whose exultation and refinements in cruelty are diabolical.

This is man! and these things are going on while we sit by our fire-side and complain of ennui, or weariness, or religious persecution or scandal, or some other trifling gnat-bite. There was a bundle of assegais which H—— showed me of various kinds. It is about six feet long, taper, about as thick as your finger at the thickest part where the iron blade joins it, and feathering off like a reed at the other end. This they use on all occasions to cut their focd, shape their pipes, gash their prisoners, and as a javelin, capable of being thrown a hundred yards with wonderful precision.

They are a fine manly race of men, the women beautiful in figure, but all plain or ugly. I should except a few—an officer told me that one was

the most beautiful woman he ever saw.

C.

#### Proberbs of all Nations.

WE have received a Prospectus of the intention of Mr. C. Mayreder to publish a compendious "Bibliography of Proverbs of all Nations"; with this view, correspondents are invited to communicate with the author, whose address is, Heiligenkreuzerhof, Vienna

(Austria.)

As regards the Proverbs of Europe, it must be supposed that the ground has been pretty well traversed, and such publications as "Proverbs of all Nations, compared, explained, and illustrated," by W. K. Kelly, London, 1870, and "The Hand-book of Proverbs of the British People," by J. A. Mair, will supply Mr. Mayreder with all that he is likely to get of British origin.

The Native Literature of South Africa is pretty abundant in proverbs, which come up to the standard of the *genuine*, as defined by Josh Billings, which are "like good cambric needles—short, sharp, and shiny." The following are among the most significant of those

which the Rev. Dr. Casalis collected and published in his work on the Basutos (London, Nisbet & Co., 1861):

There is blood in the dregs. All countries are frontiers.

The knife and the meat cannot be long together.

Harness is never tired.

The old bowl always smells of the milk.

Human blood is heavy: it prevents him who has shed it from running away.

If a man has been killed secretly, the straws of the field will tell it.

Seed-time is the time of head-ache.

Death does not know Kings.

Two dogs do not let a fox escape.

A good name causes one to sleep well.

The road is King.

You have let a mouse grow in your calabash. One link only sounds because of another.

Having thus set the example of putting together some old saws that have come in my way of reading, I may suggest to others who are learned in the lore of Bechuanas to add to this set of pithy and characteristic maxims: and we may expect a corresponding store from Kafir Literature.

2

#### The Swallow's Song in the North.

Away with me! away with me!
Over the dark-blue, crystal sea;
Together let us wing our flight,
To some sunny, southern shore,
Where nought shall part us evermore—
But, every day,

Our souls shall find some new delight.
Then come away!

Away with me! away! away!

Away with me! away with me! O'er the wild woods we'll wander free; And luscious fruits our food shall be, Our drink the sparkling rill!

No thought of care Shall be ours there:

But only love our souls shall move, And morn, and night, we'll take our fill Of its delight.

Then come away! away with me,

Away! away!

#### THE CAPE

# MONTHLY MAGAZINE.

The Colonial Archibes.

By Dr. J. W. G. VAN OORDT.

OF British Colonies the Cape is almost the only one with a long and interesting history of its own. When, some seventy years ago, Sir David Baird compelled the last Dutch Governor of the country to surrender it to the British Government, the Cape was not what it is now, but it was already an important and, to some extent, a thriving European settlement, with a past of more than a century and a half. Since that time, two-thirds of a century elapsed before the Cape obtained the full amount of liberty and self-government which a British Colony can claim; but our first Responsible Ministry thought it due to the country to take preliminary steps for having its history duly investigated. You are aware that a Commission was appointed, last year, for collecting, classifying, and indexing the Colonial Archives. The Commission thought it advisable to confine its labours to the period from 1652 to 1806, the year of the final establishment of British rule. During the short time when I was employed by the Commission to report on, arrange, and make an inventory of, the documents belonging to that period, I was, of course, unable to make myself fully acquainted with their contents; and as, in the course of my historical studies of former years, I had few opportunities of studying the details of the history of my own country, I feel that in directing your attention to that part of the Archives which belongs to the Dutch period, I venture upon a subject to which I am hardly able to do justice. Considering, however, that not only the Archives are to be accessible to the public, but that the public is to be induced to take some interest in them, I feel that, having at least some notion of them, I may claim your indulgence for a few moments while giving some hints on the manner in which the Dutch Archives of the Cape can be studied with profit to the community.

<sup>\*</sup> Address delivered as one of the course of University Lectures at the Public Library, Vol. XV.—November, 1877.

When we take up Mr. John Noble's valuable book on "South Africa—Past and Present," we find that to the seventy years since the final surrender of the Cape to the English, thirteen times as many pages are devoted as to the century and a half of Dutch rule. The reason is obviously that the author had no occasion to consult either the primary sources of information on the Dutch period of Cape history, or a detailed history of the Colony, based on a careful study of those sources. It is true that extracts from various parts of the Cape records were published in English, nearly forty years ago, by Mr. Moodie; but they solely refer to the treatment of the Natives. After Mr. Moodie, who had a fair knowledge of Dutch, and carefully performed his task, but who, it would appear, was deficient in that piety towards the documents of the past which is characteristic of historians, the Archives, for a time, were both taken care of and studied by a man to whom the Colony owes a great deal: the late Judge Watermeyer. His lectures and essays on Cape history are almost the only sources of information available to those who, from ignorance of the Dutch language, are unable to consult either the written records of the Colony or the various books and pamphlets on Cape affairs preserved in the Dessinian Library and elsewhere. Judge Watermeyer's essays have lately been republished, and not a few of your number will have read them with great interest. They are the results of careful and conscientious studies, and on the reader they will generally, and in a great measure justly, make the impression that all the salient points of our former history have been duly touched upon in them, so that further inquiries are not likely to modify the general view of the Dutch period which the public, adopting the author's conclusions, have arrived at.

The very excellence, however, of Judge Watermeyer's essays, and the value which, consequently, is put upon them by impartial readers, compel me to make a few remarks on them. At the time when they were written, the Cape had become possessed of Representative Institutions, but the stormy days when the Imperial Government had attempted to make the Colony a penal settlement, were fresh in the memories of the Colonists, and bitter feelings, of such a nature as to divide the Colony into hostile camps, had come to the surface. Mr. Watermeyer, an old Colonist by birth, but too clear-sighted to be blinded by prejudice, stepped forward as the adversary of such ideas as national rancour might engender in the minds of his countrymen. They might feel tempted to point to the good old days of Dutch rule as to a kind of golden age; but he, from authentic records, showed them the real character of that rule. The Cape, since the days when Van Riebeek first planted the Dutch flag on the shores of Table Bay, till its surrender to the English in 1795, had never been a Colony in the true sense of the word. The Dutch East India Company had established a small settlement on the coast, solely with a view to supply its own vessels with provisions. Some of the settlers, not being in the Company's

service, were called Free Burghers, but never had a name been equally misapplied, for a worse servitude than that of those Free Burghers could not be imagined. Their number increased when some reason or other, such as the influx of French refugees into Holland after the revocation of the Edict of Nantes, temporarily induced the Company to make attempts at colonizing the country. The old despotism, however, remained unchanged; and when, at times, an opposition on the part of the Burghers was called into existence—such as that in the days of the younger Van der Stel, in the beginning of the 18th century, and that against Baron Van Plettenberg, some seventy years later-it did not lead to real and lasting improvement, but merely brought to light the evils under which the Colonists were suffering Even in the days of Father Tulbagh, Plettenberg's predecessor, whose rule, for many a year, was held in grateful remembrance, a state of affairs existed to which not one Colonist of the present day would submit. Colony, in 1795, was taken by the English, all the country people were in arms against the Government; and if the English had not been there, the only prospect was the establishment of one or more Boer Republics, whose existence, in South Africa, could not mean anything else, at the time, than extermination of the Natives, and a return to barbarity by the Colonists. The establishment of English rule at the Cape could be called the Magna Charta of South Africa, that rule alone having initiated the Colonists to the true meaning of

Thus far Judge Watermeyer. Many a reader of his essays will feel tempted to ask whether a period of such hopeless despotism as that of Dutch rule at the Cape, is worthy of being made the subject of more elaborate and searching inquiries. And as regards the rule of the East India Company, there can hardly be a difference of opinion. Colonies will not thrive under the rule of a Trading Company, and Judge Watermeyer's condemnation of it exactly tallies with the results which the most recent historians of the Dutch East India Company have arrived at. The late Professor Van Rees, in his work on Political Economy in Holland till the end of the 18th century, has devoted special attention to matters referring to the Dutch Colonists; and the conclusion he arrives at is, that the Dutch were fully acquainted with the true manner in which to establish thriving Colonies, but that, nevertheless, colonization being invariably left by them to Trading Companies, all their attempts at it proved unsuccessful. Mr. De Jonge's researches about the history of the rise of Dutch Power in India, have brought to light the important fact that the famous Governor-General Koen, at the time of Charles the First's accession to the Throne of England, had well nigh induced the Dutch East India Company to colonize Java, and to confer upon the Colonists a liberty of commerce altogether at variance with the monopolizing tendencies of Trading Companies. But his plan was not carried

out, the proper time for doing so having been lost by the objections offered by the English Government of those days to Koen's reappointment to his office; and the directors of the Company did not long persist in the views which, for once, they had adopted. Many a time it was found that the system of the Company would not work. Many a time it was suggested that colonization and a certain amount of liberty of trade for the Colonists were the only remedies for the existing evils. The only result, however, was that the Company's monopoly was still more strictly enforced, until at last the body which had created the Dutch power in the Indian Archipelago, and upheld it for many years, crumbled down under the weight of its own mistakes.

But if Mr. Watermeyer rightly judged the rule of the Company, he has not, perhaps, been equally successful in judging its effects on those who had to live under it. It is owing to the late Judge that Mr. Motley's book on the Rise of the Dutch Republic has got a fixed place on our annual examination programmes; and between these two eminent men there was no small resemblance. Both were essentially men of their own time, taking the notions of that time as the standard by which to judge what happened in days of old. Mr. Motley's Dutchmen of the sixteenth century lay claim to liberty of conscience on the same grounds and from the same motives as Americans of the nineteenth would do. The men who denied them that liberty—the Emperor Charles V. and his son Philip II. of Spain-are in Mr. Motley's eyes monsters of iniquity. They were not, nor were they viewed in that light in their own days, except, of course, by those who felt aggrieved by their rule. Whoever studies their history in connection with the tendencies of the age in which they lived, will see that they could not be expected to act otherwise than they did, and that actions of theirs at which our age would shudder, were quite natural on their part. Judge Watermeyer, like Mr. Motley, constantly tries the men of the Dutch period by the ideas prevailing in his own time. But what the historian of the Cape ought to do is to live and think with the men of the olden times, so as fully to understand them. To do so it will be first of all required, on his part, to study the nation under whose auspices the Cape Colony was founded.

As I told you in my introductory remarks, I have had little opportunity of studying Dutch history by itself; and when I state that for nearly a century and a half—from the first attempts of the Dutch to cast off the Spanish yoke till the peace of Utrecht—the position of the Dutch in history is far beyond their numerical importance, I feel sure that I do so neither under the influence of one-sidedness, nor under that of national pride. They never were, nor could be, the leading nation of Europe, but their country was almost the centre of the agencies by which Europe was governed. In the opinion of some of my countrymen, the Dutch, in those days, were the chosen people by whose instrumentality the triumph of religion and

of liberty was to be secured. Such notions are of course out of question; but even the often repeated statement that the Dutch were so attached to their liberty that their efforts to vindicate it could not be withstood by the power of the Spanish monarchy, does not give a correct explanation of the greatness of the Dutch in times past. In the beginning of the present century they quietly submitted to the, for them, very oppressive rule of Napoleon the First, and in the sixteenth century they would never have triumphed over Spain, had it not been felt, in other countries of Europe, that the common interest of Europe did not allow them to perish. Mr. Froude has not mastered Dutch history; but his history of the later Tudors, in which he has made use of many new and important documents, throws an unexpected light on the first days of the struggle between Spain and the Netherlands. It is well known that the opposition offered by the Dutch Provinces, in 1572, to their Spanish Governor, the famous Duke of Alva, was chiefly caused by an attempt, on his part, to charge Dutch commerce with a most oppressive and most injudicious tax. It is less generally known, and has not been put in the proper light by the late Mr. Motley, that the tax in its very worst form met with much less resistance than it might have been expected, and was, in fact, virtually agreed to; whereas, when Alva afterwards insisted on its being levied, and had, in his attempts to enforce it, to encounter a most strenuous resistance, both on the part of the public and of that of Dutch grandees who, till then, had stood by him, its character had been so altered by that most able statesman, who, in a Spanish and monarchical point of view, was undoubtedly the right man in the right place, as to make it a very tolerable tax, and one which the trading classes might have easily submitted to. But, in the intervening period, the weakness of Alva's policy in regard to the English Queen, whose most unwarrantable proceedings he allowed to remain unpunished, had shown the Dutch that he felt his own position, in regard to the neighbouring countries, to be critical, and that, accordingly, they had a good chance of releasing their country from his iron grasp as soon as there was a prospect of getting foreign aid for the purpose. This fact, which is less gratifying to Dutch national pride than to English sentiment, has not been fully understood by Mr. Froude, but any Dutch reader of his work is sure to see it at once.

The cause, however, of the temporary greatness of the Dutch nation I cannot dwell upon for the present. The fact that European history was centred, to some extent, in that of Holland, is beyond doubt, and has not been brought to light by Dutch scholars, naturally inclined to magnify the historical importance of their own country, but by that impartial research which is characteristic of modern historians. Every school-boy in Holland has heard of Admiral Piet Hein, who, in 1628, captured the Spanish silver-fleet, and who, it is added, when accompanied, after his return, to his house by an enthusiastic multitude, was warned by his wife, on reaching the

threshold, to put on the slippers waiting for him on the door-mat, and not to enter her nice rooms with dirty boots. Every Dutch school-boy has heard of the successful siege of Bois-le-Duc, in the following year, by which the Frontier of the Republic was secured. But not until the great German historian of our days - Leopold von Ranke—had published his history of Wallenstein, the importance of Piet Hein's victory for the whole of Europe was fully realized. It was that victory which, by weakening the resources of the House of Austria, and increasing the means at the disposal of its adversaries, cleared the way for that appearance of Gustavus Adolphus on the scene of the great German war which put for ever an end to the predominance of Austrian power, and to the hopes of Romanism to recover, by force of arms, the ground which it had lost. As to the siege of Bois-le-Duc, its importance in connection with the Thirty Years' War is admitted; but quite accidentally, some years ago, I hit upon a curious evidence of the eager attention with which it was watched all over Europe. I was engaged, at that time, in a research about a plan, which was repeatedly mentioned in the first period of the war, of a coalition, against the House of Austria and its allies, between the Western Powers and Turkey. King James I. and his successor were too deeply impressed with a sense of the common interests of Christian princes fully to go in for the idea, although their Minister at Constantinople, Sir Thomas Roe, was in favour of it. The Dutch resident with the Porte, whose interesting correspondence on Turkish affairs I had occasion to inspect in the State paper office at the Hague, had no such scruples, and, with his aid, at the very time when Gustavus Adolphus was planning his German campaign, the plan might have been carried out, had not the death of the principal actor. Prince Bethlen Gabor of Transylvania, prevented it. Now in that correspondence I found it stated that Bois-le-Duc, which in former times no Turk had ever heard of, was, in the days of the siege, as popular a name with them as Rome or Bagdad.

Such was, in those days, the position of Holland in Europe. You will easily understand that the natural consequence of all this was to raise the Dutch above their ordinary level, and to bring out all the talent and energy they were possessed of. They boasted of enjoying more liberty, and being a stronger support to the cause of liberty, than any other nation of Europe, nor was their claim to be

considered as such disallowed by the European public.

But did Dutch liberty go hand-in-hand with that good government which, in the opinion of an English public of the nineteenth century, is the best security for it? Was its character such that it would be called liberty at the present day? In answer to these questions I shall first observe that the union of the Dutch Provinces was so loose, and the position of the several towns within the Provinces so independent of any central authority, that the ablest statesman and political writer the Kingdom of the Netherlands has given birth to, declared himself, at one time, to be at a loss how to account

for the puzzling fact that, under a constitution like that of the Dutch Republic, the political machinery could be kept at all in working order. Nor is it less puzzling to men imbued with the present notions of liberty, to find that those people who were so proud of their rights as free citizens, submitted to the rule of municipal aristocracies, often of a most exclusive kind, and tainted with all the corruption by which such rule is generally characterized. Matters went on smoothly, and were deemed to be in a satisfactory condition, as long as the daily pursuits of the people were not interfered with. When Cromwell taught the Dutch that their fleets would no longer be allowed to sweep the narrow seas, trade and industry were brought to a stand-still, and the Government of the day could hardly maintain its ground against the existing discontent. Peace having been restored, it was found that a most unpopular clause against the House of Orange had been added to the Treaty; but the revival of trade so engrossed the minds of the public, that the Government was allowed to have its own way. It was not till the eighteenth century, when the trade of Holland had greatly diminished by the competition of England and other countries, that a chronic discontent arose, which reached its highest pitch after the American war, and ultimately led to armed intervention on the part of Foreign Powers. It is now generally admitted that without the despotic and detested rule of Napoleon the First, matters in Holland would never have been fully set right, and that the liberal institutions and the eminent social prosperity enjoyed by the present Kingdom of the Netherlands, would not have been possible without that thorough cleaning of the Dutch stable of Augias which the great French Hercules alone had the power to accomplish during the brief period when he swayed the destinies of Continental Europe.

You will say that, till now, you have heard nothing about the Archives. This I admit, but what is the outcome of all this argument of mine on Dutch history? It resolves itself into two facts. The one is that, in the days when the Cape Colony was founded by Van Riebeek, the Dutch were a nation in the full vigour of life, and standing high in the estimation of Europe. And here I have to add to my former remarks on this point that the mismanagement and corruption by which the rule of the Dutch East India Company was marked, has not prevented its history from being full of actions of great valour and energy. It has been stated by Judge Watermeyer, and it was lately repeated in the Cape Monthly Magazine, that the first Cape Colonists were not Dutchmen of the old stock, but a rabble of needy adventurers, mostly from Germany. Now at the very time when the Cape was first settled, exactly the same thing was stated about the Free Burghers of Batavia, who, it was complained, called as loudly for the rights of a free people, and as boldly urged their descent from a nation which had fought eighty years for its liberty, as if they were lineal descendants of Van der Werst or Barneveldt. Even the lowly and uneducated, even those men from Germany who, in the seventeenth century as well as in our own times, flocked to a country where they had better prospects of getting on in life than at home, got a taste for, and laid claim to, the old Dutch liberty; for liberty, in any shape, is possessed of great attractions, and those who have any claims to it will not allow them to lie dormant. But the liberty which the Dutch were anxious for, -and this is the other fact I referred to,-was neither the selfgovernment which the English, nor the equality which the French, claim as their birthright. They wanted to get on without being interfered with, and even such interference as in our days would be deemed intolerable, they put up with as long as it was sanctioned by usage, and as what they considered to be their right, was respected. The men who first settled the Cape are worthy of our notice by the fact of their belonging to the nation which had fought, and was again to fight, the battle of liberty against despotism; but they should be judged by no other standard than that of their own time

and of their own people.

The study of the days of those first settlers cannot fail to be highly attractive to a Cape Colonist. He is brought by it into immediate contact with what, in imitation of Cato, he might call the origines of his nation. On those first days of the Cape Colony a careful study of the Archives will throw a great deal of light, nor is such study a difficult one. Those venturing upon it will have to be tolerable Dutch scholars, and to get some knowledge of Dutch history and Dutch life in the seventeenth century; and as there is no want of historical works on the period, that knowledge is easily obtained. The Archives contain nearly the whole of Van Riebeek's journal, in which was daily recorded whatever of importance happened during the ten years of his rule. Large parts of it have been printed, but copies are scarce, and the journal is not the only source of information on those times. There are the resolutions of Council, a body which in Van Riebeek's days had to deal with all matters of administration and justice. There are memorandums of gentlemen of high standing in the service of the Company, who, during a temporary residence at the Cape, vouchsafed to give the Governor the benefit of their valuable advice on the management of Cape affairs, and whose wise suggestions were answered, on the margin, by angry remarks in Van Riebeek's handwriting. There are the letters exchanged between the Governor and the authorities at home and in Batavia. To write a history of Van Riebeek's career at the Cape would be in itself a most inviting task, and if the life of our first Cape Governor were made the subject of a prize essay, there would be no want of those trying their hands at it. There is a great charm in reading the records of those days when Liesbeek River, or rather a hedge planted at some distance from it, was the boundary of the settlement, when the Governor went on what was called an "expedition" to Tigerberg, not to be present at a ploughing match, but to hold a conference with the King of the saldanha Hottentots on cattle-buying, and when a visit of those Hottentots to the Castle was an event worth recording. Parva fuit, si prima velis elementa referre, Roma, sed in parva spes tamen bujus erat. Small though the Dutch settlement of the Cape was, Van Riebeek thought already of having the country explored as far as a certain large river in the interior, from whence, as he imagined, the happy regions of Natal might be reached by land. Nor are the next times devoid of interest. Native tribes are mentioned which have long disappeared; attempts at colonization are heard of, which are especially worthy of notice in the days when the first French refugees settled in the country. In those days the rule of the Van der Stels had commenced, which is described in some of Judge Watermeyer's most interesting essays, but which is worthy of being more fully and accurately studied, because it was then that the more complicated arrangements under which the Cape was governed in the eighteenth century, were introduced by a Commissioner-General, sent, for the purpose, by the East India Company. Whatever we may think of a tyranny which ultimately proved too much for the patience of so long-suffering a people as the Cape Colonists of the beginning of the eighteenth century were, there is a certain grandeur in those men who, while simple servants in the employ of the Company, managed to create for themselves, among free Dutch Burghers and French refugees for conscience's sake, something very like the position of German Princes of those days.

After the times of the Van der Stels, the documents preserved in the Archives have a more varied character, but, unfortunately, they become much less interesting. There are whole volumes of Resolutions of Council in which there is scarcely any entry interesting at first sight. In the day-books a few notices of important events are sometimes found, such as the arrival of the first Moravian missionary, which is duly recorded as cheerful news for the poor ignorant Hottentots; but as a rule they seldom give more than the state of the weather and the arrivals and departures of vessels. There are collections of pieces regarding the affairs of the Company, which very seldom contain anything worth noticing, and memorials presented to Government which, generally speaking, are not very interesting either. A few scraps of genuine Cape life are sometimes met with in the Annexures to the Resolutions of Council; but here, too, whole volumes are often to be looked through before meeting with anything of real interest. There is something frightful, and for that reason attractive, in the well-known story of wicked Governor Noodt, who was found dead in his arm-chair a few moments after a soldier whom his tyranny had driven to desertion, and whom he had ordered to be put to death, had summoned him to appear before a higher tribunal. But although, for curiosity's sake, when I was employed at the Archives, I examined most of the documents referring to the period of his rule, I met with nothing which gave

the slightest clue to the nature of the tyranny he was charged with. The history of Holland and that of her Indian possessions in those days, might, perhaps, when fully known, throw some light on contemporary events at the Cape. In Governor Noodt's time the day was not far distant when the corruption prevailing in the Municipal Governments of Holland would give rise to serious disturbances, and the Dutch East India possessions were, almost at the same time, under the sway of a Governor-General equally detested for his tyranny as the wicked Cape ruler. There are times in the history of nations when the results of an unhealthy state of society come to the surface; and as in France and England so in the Dutch Republic, the first years after the peace of Utrecht were marked by many demoralizing agencies. That part of Dutch history, however, has been much less accurately studied than the seventeenth century, and we can easily understand that, for want of interesting information on the events and tendencies of the eighteenth century at the Cape, Judge Watermeyer saw no occasion to spend much of his leisure in the study of a period of which, in the memory of the Cape public, hardly anything but Noodt's tyranny and Tulbagh's paternal govern-

ment had been preserved.

Still that period is worthy of careful study. At the end of Willem van der Stel's rule, the Free Burghers at the Cape were estimated at not quite six hundred. Less than a century afterwards the white Colonists numbered between twenty and thirty thousand, although no new efforts had been made to colonize the country. In fact, when on the part of the directors of the East India Company inquiries were made, at the Cape, about the expediency of increasing the number of Colonists, as it happened in the days of Governor De Chavonnes, public feeling at the Cape generally appeared to be that the white population of the country was large enough, and that not much would be gained by sending out new Colonists. "The system," says Judge Watermeyer, after having brought the history of the Van der Stels to a close, "by which the liberty of the subject was at the Governor's caprice, was not altered;" and to this fact he traces the origin of the trek-system, which he calls the bane of South Africa. But while admitting that the political condition of the country was unsound, and that the trek-system may be quoted in evidence of the fact, I should like to ask whether the later period of Dutch rule, during the greater part of the eighteenth century, was, for the Cape and for men of the stamp of the Cape Colonists, a time of unmitigated evil. "There may have been happiness in the land," says Judge Watermeyer in referring to Governor Tulbagh's days, "notwithstanding what we should now deem preposterous interference with private right, and slavish submission." And then he goes on arguing, from the smallness of the revenue and the very limited extent of commercial operations carried on, at the Cape, by the Company, that there was not even real prosperity. Now as regards the happiness which may be enjoyed

under despotic rule, I willingly admit that, in most cases, it is a delusive one. The rule of the Company, it is stated, was fatal to the development of the country and of the people, and those who, by penetrating into the interior, managed, for a time, to escape from it, were in a state bordering on barbarity. If this statement is fully correct, it matters little whether the people were satisfied with their condition, for if they were, their indifference about their own progress and development would stamp them with the character of a demoralized race. But have we not, in our midst, the clearest evidence that the despotism complained of did not produce, a century ago, the effects which at the present day it would be sure to cause? Look at Cape Town, with those spacious and lofty and strongly-built houses of the Dutch time which are now mostly used as stores and boarding-houses and school-buildings! Are they remnants of a period when there was neither prosperity nor progress? Look at the Cape people! In those days long gone they certainly did not make, on casual visitors, the impression of being an unhappy race, doomed to misery and demoralization by the tyranny of their rulers. In the Resolutions of Council during the eighteenth century there is hardly an entry more frequently recurring than that Mr. So-and-so, having touched at the Cape on his journey to India, and having entered there, or being about to enter, the state of holy matrimony, had applied for leave to stay, either for a limited or an unlimited time, in the Colony. The Dutch who, on their journey eastward, had to call at the Cape, evidently at once took a liking to the people; and as to the Cape young men who, to complete their education, came to Holland, there was a tradition at the Dutch Universities which, a full generation before my own University days, and at a time, therefore, when English rule was quite new to the Colony, was already an old and established one: that of all students those from the Cape were most popular and most worth associating with. In the recollections of many first-rate men in Holland, the Cape friends of their youth hold a large and prominent place.

I think I have said enough to show that, although Cape history during the eighteenth century may not be, at first sight, as attractive and as worth attending to as that of Van Riebeek's rule and of the first growth of the Cape settlement, the period when the Cape Colonists developed themselves into a numerous body of people, with distinct national characteristics of their own, and impressing the nation of which they were the offspring, with a sense that they had not degenerated, and were rather an ornament than a disgrace to the Mother-country, is worthy of careful study. There are, it is true, for a time no very important events to be chronicled. One of the most interesting, perhaps, is Governor-General Van Imhoff's visit to the Cape on his journey to Batavia in 1742; for it was by the agency of this able and liberal-minded statesman that the Cape Colonists were made sure of an opportunity of disposing of all their produce, at fixed prices, to the Company, and, accordingly, of a limited amount of

prosperity which was quite sufficient to secure the prospects of the Colony. After Governor Tulbagh's death the opposition offered to his successor, and the lengthened stay of French troops at the Cape in the last years of the American war, are worth noticing. The latter circumstance explains, to some extent, the altered spirit prevailing in the last days of Dutch rule. The statement, on the part of the farmers in Governor Sluijsken's days, that, being the people, their commands were to be obeyed, will cause less surprise when it is remembered that the influence of the ideas which in the latter half of the eighteenth century prevailed in France, was felt at the Cape as well as in Holland. In support of this, I shall quote the example of a gentleman of high standing and considerable influence in those days: a man who, in the first period of British rule, was sent as Landdrost to Graaff-Reinet because he was thought most likely to succeed in restoring order among the farmers, and who, some years before that time, had been to Holland as a member of a deputation sent to lay the grievances of the Colonists before the Dutch authorities. When, in a letter to the leaders of his party in the Colony, he is found to refer to Christ as to the greatest philosopher of the world, we detect at once the influence of J. J. Rousseau, whose works were, perhaps, hardly less read in Holland than in France, and whose views, it would

appear, were neither unknown nor unpopular at the Cape.

Much more interesting, however, than any account of the events which marked the history of the Cape in the later years of Dutch rule, would be a sketch of Cape life in the eighteenth century, in the style of that well-known chapter of Macaulay's History of England which is one of the brightest monuments of the author's historical talent. The great English historian had at his disposal many a precious remnant of the times whose history he wrote, which a Cape imitator of his work would not meet with in our Colony. But the latter would find, in the Archives, at least some facts tending to complete and correct the ideas on Cape society suggested by Kolbe's description of the Cape and other works of a similar kind. When the Peace of Amiens had led to the restitution of the Cape to the Dutch, the "Council for the Asiatic Possessions," to which the Dutch Government had committed the management of the countries formerly governed by the East India Company, appointed a man of considerable talent, De Mist, as Commissioner-General for the Cape Colony. The Archives contain a number of volumes of so-called "minutes," in which De Mist not only gives an account of his own proceedings at the Cape, but also many a hint on the social condition of the Colonists, and on the causes which had led to it. Being fresh from Home, De Mist was not likely to see everything in the proper light, but his remarks on Cape life, being calculated to give a complete idea of it, will be found a very good starting point for those who are anxious to form an idea of Cape society in the last days of the Dutch period, and will direct their attention to those other parts of the Archives where they can meet

with further particulars about the points which he touches upon. He greatly complains of the extravagance prevailing in Cape Town; but instead of charging the Cape Colonists with an innate tendency to depart from the frugal habits of the Mother-country, he attributes the evil to the American War, when the large profits made by the Colonists in supplying, with provisions, the numerous French vessels which at that time called at the Cape, and the intercourse with French visitors, had tended to foster luxurious habits. The numerous documents connected with the complaints against Governor Van Plettenberg and the officials of his time, likewise give a clearer insight into the state of society in those days than a mere study of the Resolutions of Council and the documents annexed to them, will afford.

In the days of Van Plettenberg's predecessors, however, there is little beyond those annexures, unless it be those letters to the Directors of the Company in which, at stated times, general reports about the state of the Colony were given. That in the annexures to the Resolutions Cape life is not generally seen at its best, is a natural consequence of the fact that whenever matters are managed properly, Government has little to do with them, whereas interference is necessary when things go wrong. In 1748 the Council had to advert to the scandalous conduct of one of the ministers of the Dutch Reformed Church, who was known not to be on the best possible terms with his wife, and who ultimately had grossly ill-treated her. You will say that such matters had better be passed over in silence; but I can assure you that if you read the lengthy document addressed to the Council, in which the unfortunate clergyman-for his conjugal life was not a pleasant one, - tries to explain his conduct, you will get a better glimpse of Cape life and Cape society in those days than by reading through many a volume of Resolutions of Council. At a time when great deference had to be paid to rank, and when etiquette was so strictly enforced that by enactment the use of umbrellas could be limited to the higher officials, a minister of religion, who ranked below members of Council, and who had to associate with people in various stations of life, was naturally bent upon jealously guarding the dignity conferred on him by his office; and the thought that disrespect for his person and his labours in the church was gaining ground among the congregation by the agency of his own wife, proved so harassing to the reverend gentleman referred to, that in the calm of night, after having just finished his meditations on his next sermon and the pipe which, in performing the task, he used to indulge in, he was suddenly betrayed into the savage outbreak for which he had to answer to the Council.

To understand the life of a community of the olden times, and to give a clear account of it to the public, is not a task which every one can venture upon. The fact that the author whom the future historian of Cape society will have to take as his model, is no less a man than Macaulay, is in itself sufficient evidence of this; and how few people thoroughly understand even that society in which they

themselves are working and living, so as to give a clear idea of it to a stranger! Nor should it be forgotten that to understand Cape society during the Dutch period, a knowledge of life in Holland is required which cannot be got except by studies for which few colonists have sufficient leisure. But those that have some leisure: those that are anxious to have a glimpse of other days, and to get some idea how their ancestors lived in times long past: will study the Archives with profit to themselves and to the public when it is their object to trace the history of some peculiar institution or some striking feature of Cape life. The old maxim, noblesse oblige, has a wider application than the words imply. Family pride may be a weakness, but it has its good sides when allied, as it should be and often is, to a sense of duty; and it would be no vain curiosity, on the part of a Cape Colonist with a respectable pedigree, to try to discover, by studying the Archives, when and under what circumstances his ancestors first settled in South Africa, and what part they took in the affairs of their own days. Certain changes in the management of the Archives will have to be resorted to before it becomes easy, for any one desirous of inspecting and studying them, to do so at leisure and whenever it is convenient. There should be, for instance, a keeper of the Archives, present at stated hours in the room where they are kept. But when all obstacles in the way of the public are removed, there is a good chance, I should say, that not a few colonists of Dutch extraction will devote part of their time to the Archives, so as to become acquainted with their own ancestors and those of other well-known Cape families.

It is not long since the death of a Cape Colonist who, by the great interest he took in the history of his country, by the nature of his literary and professional studies, and by his experience of political life, was better qualified than, perhaps, any one else to be the historian of the Cape Colony. I refer to the late Honourable Mr. De Wet. He had studied both the Cape Archives and a number of books and documents referring to Colonial history, part of which were not to be obtained without considerable difficulty; and his intimate acquaintance with some of the leading men of the last days of Dutch rule had enabled him to collect a vast amount of oral information on Cape affairs. He was preparing a History of the Cape till its final surrender to the English, when death interrupted his labours. The valuable material which he had collected, is extant, although his work was not ready for the Press. The publication, in some shape or other, of the results of his studies, would supply a great want, and would be sure to prove an incentive to further studies by a younger generation. There is a prospect that that publication will soon be proceeded with; but whether or not it takes place, it will not do for the Cape Colonists to neglect the study of Cape history. A community indifferent about its past is not likely to have a future, and in whatever country there is liberty and progress, the history of its own past

will be duly cared for.

To a Traitor.

Thou arch-betrayer, Love,
Thou hast rough-handled me,
Robbed, riven, rent from me
Truth, trust, and treasure-trove.

Thou hast my soul embalmed; Life languisheth with me, But what is that to thee? Thou hast my soul embalmed.

How couldst thou be so bold?

I had learned all thy laws;

I leaned on thee, because

Thou wert of my household.

Ay, cruel honey-bee!
To make a careless home,
And sack the honey-comb,
As thou hast rifled me!

Ay, heartless promiser!
Ay, poor performer, see
How thou hast perjured me!
Had I not plighted her?

Couldst thou not tarry here To bless a lifetime, love? Were all the sheaves above Less than my little ear?

Why take the flower away, And leave the plant to wither? Why hither and then thither Within a summer day?

Thou daredst drink with death!
He had passed by me here,
Hadst thou not drawn him near,
And pledged him with her breath.

I will not be consoled; Thou didst play out thy play, I tell thee, yesterday, And now thy tale is told.

As thou hast done to her, Do so to me, and more; Loose me, and go before, And leave me, one with her.

ALTER EGO.

The Overland Telegraph and the Opening up of Africa.

By Thos. Watson, F.R.G.S., F.R.A.S.

AT a time when public attention is so earnestly directed to the exploration of Central Africa, it may not be considered out of place to offer a few remarks on the subject, more especially with regard to its bearing on the future prosperity and interests of the South African Colonies.

Until very recently, the map of Africa presented a complete blank over nearly one half of the space it occupied, across which appeared, in large capitals, the words "Sahara or Great Desert," to the great delight of indolent school-boys who escaped being questioned on the subject, because there was nothing to question them upon. The records of a long list of modern travellers, headed by Livingstone, clearly prove that the interior of Africa, especially along the Lake Region, is one of the most fertile portions of the globe. The Rev. Roger Price, brother-in-law to Livingstone, and who was a fellow-passenger with me on a homeward voyage of the Danube in the early part of 1875, thus describes a portion of the inland district of Nquru: "The Nquru range is, in reality, the northern continuation of the Usaquru Mountains, so wonderful in their grandeur and so precipitous to climb, to which all the African travellers refer. Inside the Nguru Mountains, to the westward, is a range of detached hills-the Kuguru Hills, amongst and beyond which live the Wakoquru and Musai. Here there is a remarkable gap in the granite masses several miles wide, on each side of which the ranges appear as vast mountain walls, and the new route passes between them to the west—the Nquru Hills being about six miles distant on the north side. The broad valley between is wonderfully fertile. Villages and stopping stations are numerous. Several streams from the northern hills flow through it down to the Wami. The people are gentle and peaceable, and the country

possesses abundance. The corn grows to a height of sixteen feet, and the sugar cane runs wild into jungle and forest, and the mountain sides feed flocks of sheep and goats. To the north are large herds of cattle." Further on, speaking of the District of Kitangi, he says: "To the northward and round to the west and south-west are high ridges and detached hills, the whole inclosing a basin of about ten miles wide. The whole of this was covered with a fine and comparatively short grass, such as I had often seen in the great pasture lands of the south. There was but little bush except along the course The large spreading Mimosa growing in its usual of the ravines. fashion, here a solitary tree, there a clump of half-a-dozen, gave to the open part of the basin quite a park-like appearance. . . As might be expected, when we descended into the Ketangi Basin, considerable flocks and heards began to appear, but what was most interesting to me was the sight of villages with which the whole of this great basin was dotted over. Look wherever I would I could not fail to discover several of these, often within rifle-shot of one another."

Who will say after this that Central Africa is a barren desert?

From Gondo Koro, on the upper waters of the River Nile, to the latitude of Mozambique and Quillimane, there is a succession of magnificent fresh water lakes, bounded by fertile regions teeming with millions of inhabitants. The whole of this interesting country has now been fully explored by modern travellers, including Livingstone, Burton, Speke, Grant, Cameron, Young, and others on the one hand, and by Baker, Gordon, Stanley, and Gessi on the other. A junction has lately taken place at the Victoria Nyanza between Colonel Gordon and Mr. Stanley, and steamers of considerable size

are now afloat on the lake named.

In June, 1876, "The International Commission of the African Association" met, on the invitation of the King of the Belgians, at Brussels, to consider the best means to be adopted for exploring the interior of the great continent. The meeting was attended by delegates from nearly all European countries. The greatest enthusiasm was displayed on all sides, and the immediate commencement of operations decided upon. The suggestions of His Belgian Majesty were unanimously adopted, and national committees formed for the purpose of co-operating with him in so grand an object, as follows: in France, under the presidency of Count de Lesseps; Austria, under Archduke Rudolph; Italy, Prince of Piedmont; Spain, the King; Switzerland, M. Benthelier de Beaumont; Russia, the Grand Duke Constantine; Holland, the Prince of Orange; and Portugal, the Duc de San Januario. Since that date the Royal Geographical Society of England have considered it a duty to join in the movement, and have formed a branch association for "African Exploration," subscribing at the same time the sum of £,500 for the purpose. Large subscriptions have since poured in, and I believe the fund now exceeds £5,000. H.R.H. the Prince of Wales is the patron of the Vol. XV.

new association, and as several exploring parties have already been organized and dispatched, it is evident that Central Africa cannot be

much longer regarded as a terra incognita.

I am glad to find that the objects of the expeditions now going forward, are not only to inquire into the physical and political geography of the interior of Africa, but to select the best routes for the construction of wagon-roads, railways, and telegraphs. It is gratifying also to find that the idea of an overland telegraph to the Cape of Good Hope is attracting the attention of practical men. The Academy, of the 11th August last, contains an account of a mixed conference of geographers and telegraph engineers, held at the Royal Geographical Society's rooms, to consider the feasibility of constructing such a line of telegraph across Africa to connect the Egyptian lines with those already existing in connection with the Cape.

Many of your readers will, I doubt not, recollect that some five or six years ago, I had the honour of directing the attention of the mercantile community of Cape Town and of the public generally to the necessity of having more immediate communication with the mother-country, and strongly recommended that steps should be taken for carrying out this idea, by the establishment of a submarine telegraph via Mauritius and Aden to England, and other great centres of trade. The proposal was at first considered somewhat premature and in advance of the times, but, nevertheless, feeling confident that such an arrangement would eventually become an absolute necessity, I continued to maintain a corespondence with the official authorities at Natal, Bourbon, Mauritius, and other places immediately interested. In due time the attention of our Legislature was directed to the subject, and in 1873 an Act was passed, by which the Governor for the time being was authorized to enter into a contract for laying down an electric cable between this Colony and Aden, in consideration of the payment of a subsidy not exceeding £10,000 a year for ten years. Subsequently the agent of the "Hooper Telegraph Works Company" undertook to do the work for an annual payment (as far as the Cape Colony was concerned) of £9,500, for the term mentioned. As great depreciation in the market value of submarine telegraph stock had in the meantime taken place, it was found impossible to obtain the required capital in the money markets of Europe, and finally the whole affair fell through, the contractors paying us  $f_{2,500}$  as compensation for breach of agreement.

Independent of this forfeiture, I could not help feeling greatly disappointed at the result, and on my arrival in England in 1875, immediately set about making further inquiries. After several interviews with the representatives of telegraph companies and the Crown Agents for the Colonies, I found that no reliable contractors would agree to construct the proposed line for anything like the sum mentioned in the agreement with the "Hooper Company." Some hopes were, however, held out that under certain conditions, the

British Government might lend us assistance in the matter. my suggestion, Mr. A. McArthur, M.P., put a question in the House of Commons to the authorities on the subject, and was simply told that the matter was "under consideration." Later accounts led me to the conclusion that no immediate aid from that quarter could be fairly calculated upon, and in the mean time I came across a letter of Mr. T. H. Strangways, published in the Colonies, suggesting an overland telegraph through the interior of Africa to the Cape Colony. At first sight I felt staggered at the boldness and novelty of the idea, but subsequently, after making the necessary inquiries, found myself quite a convert to the scheme. accounts received from Europe by each succeeding mail tend still further to convince me that the idea is not only feasible, but may justly be regarded as one of the grandest schemes of the present age. The opening of a water communication between the Mediterranean and the Red Sea, the tunnelling of the Alpine Mountains, the proposed creation of an immense Inland Sea in the African Desert, are all very well in their way, but, in my opinion, the final results to be obtained by a thorough examination of the vast interior of Africa, and the construction of a line of electric telegraph through the entire continent to the South African Colonies, whether regarded from a moral, commercial, or political point of view, or from all three combined, is of still greater consequence.

What a splendid field is here presented for missionary and commercial enterprise! In a few years every station along the line would become a centre of trade and entirely self-supporting, while by the establishment of legitimate commerce, by which European manufactures could be exchanged for the valuable products of the country, the accursed traffic in slaves would be entirely annihilated. An effective telegraph line through the slave region would do more towards the total abolition of the trade in human flesh than the expenditure of millions of British treasure in the maintenance of cruizers on the coasts and other charges. Under the auspices and orders of the Khedive of Egypt, Colonel Gordon Pasha has forced his way up to Victoria Nvanza, and has established steam navigation on that great inland sea. Stanley has penetrated from the east and north to the same point while the intermediate country has not only been traversed by various travellers, but the great Lakes of Tanganyika and Nyassa

systematically and carefully circumnavigated and surveyed.

It is well known that telegraphs already exist as far up the Nile as Kartoom, 1,000 miles from Alexandria, and it is believed that in a short time, connection will be made as far as Gondokoro. Taking, therefore, the latter as the starting point, and considering that our South African Lines must, ere long, extend to Leydenburg and the Gold-fields, the gap to be filled up would not be more than 2,800 miles. Then seeing that we have already overland lines in similar countries exceeding this distance, namely in Russia and America, and one in Australia of nearly 2,000 miles through a most inhospitable

and barren region, we ought not to despair in respect of the present proposal. With regard to the question of native interference, Colonel Grant has assured us that the payment of a trifling subsidy to the chiefs of hostile tribes along the route would entirely obviate the danger of interference. All savages have a kind of superstitious dread of telegraphs, and experience has proved that little if any harm is likely to be encountered in this respect. Again, damage to posts by wild animals could easily be avoided by protecting them with sharp points or spikes to the height of six or eight feet. The line could be carried along, if necessary, by submerging light cables in the many lakes on the way. The lakes, Albert Nyanza, Tanganyika, and Nyassa, constitute at least one-third of the whole distance. Starting from Gondokoro, stations would have to be established at 'M'tesa's capital on the Victoria Nyanza, Ujiji on the east side of Tanganyika, and at Livingstonia on the north side of Nyassa. Branches might be thrown out to ports on the East coast, such as Zanzibar, Cape Delgado, Mozambique, Quillimame, and Lorenzo Marquez, the expense of which would, no doubt, be defrayed by local contributions.

Talking of expenses, it may be desirable to point out that a land line of the kind proposed, would probably cost little more than onethird of the sum which would be required for the construction and effective maintenance of a submarine cable. The line across Australia, chiefly on iron poles, over an unsurveyed and barren country, almost entirely devoid of water, and no roads, cost an average of about £180 a mile, which, I believe, is the highest rate

ever paid for a similar work.

Before leaving England for the Cape in 1876, Mr. Kerry Nicholls and myself, had a long interview with the manager of Messrs. Siemens Brothers on this subject, in the presence also of Mr. Holtzer, who erected some of our Cape lines, and who has had great experience in the construction of overland telegraphs through Siberia and other difficult countries, and the conclusion arrived at was that, after making allowances for all unforeseen contingencies, a line from Gondokoro to the latitude of Delagoa Bay, a distance of 2,500 miles, could not possibly cost more than £200 a mile, or a total amount of half a million sterling; the lowest estimate for a submarine cable being  $f_{1,300,000}$ . The annual interest on this half million, at  $4\frac{1}{2}$  per cent., would be  $f_{22,500}$ . This amount might be thus apportioned :-

Cape of Good	Hope				£10,000
Natal	• •	• •		• •	3,000
Transvaal		• •		• •	1,000
Free State	• •		• •		1,000
Portugal			• •	• •	2,000
Great Britain		• •	• •	• •	5,500

The advantages of a land line over that of a submarine cable would be great in many respects. In the first instance, it is well known that a single breach in the latter has cost £30,000 or £40,000 to repair, while a break-down in the former case would scarcely cause

the expenditure of more than a few shillings.

Again, seeing that Great Britain has a large capital invested in Egypt and on friendly terms with the Government of that country, an overland communication with her South African possessions might, from its comparative inaccessibility and freedom from destruction, be of incalculable value in time of war, in which case a submarine cable along either coast of Africa would be certain to be

cut off by the enemy.

Under all these circumstances, I cannot help thinking that the Government and people of this country ought not to treat the movement now going forward with silent indifference. With all our boasted wealth of gold and diamonds, we were taunted the other day, by one of the speakers at a public meeting in London, with being the only important possession of England, except the Fiji Islands, without telegraphic communication with the mother-country. South Africa ought to join heartily in such a project, and secure for herself a portion at least of the vast treasures locked up in this great continent.

Immense interests beyond those of a geographical or scientific nature, are inseparably connected with the opening up of the African interior, and we ought not to sit still and allow other nationalities to

forestall us.

Romolo Gessi has already circumnavigated the great lake Albert Nyanza with two iron steamers built by Samuda Brothers, and, on the other hand, a steamer is now in constant use on the Nyassa, in connection with the new mission established there. Colonel Gordon has supreme command over Soudan, Kartoom, and the equatorial lake region, and expeditions have already been started under the auspices of the Governments of Germany, France, Italy, and Portugal, to explore and survey the hitherto unknown portions of the interior. It is stated that Portugal alone has voted £20,000 for

that purpose out of the public funds.

We have now before us the announcement of Mr. H. M. Stanley's safe arrival at Emboma, near the mouth of the Congo, and an account of his adventurous journey across Africa, which proves that the River Lualaba of Livingstone and Cameron is identical with the head waters of the Congo, issuing from the great Lake Tunganyika; and further showing that there are at least three great waterways into Central Africa, namely, by the Zambezi from the east, the Congo from the ewst, and the Nile on the north. It may be said that formidable obstructions to navigation exist in all the three cases in the shape of cataracts and rapids, but even these may in time be overcome.

By the tenor of a resolution unanimously adopted by the Cape

Town Chamber of Commerce the other day, I am glad to find that mercantile men and others are awaking to the desirability of co-operating in the exploration and civilization of Central Africa.

As our own interests are so deeply involved in the case, I would respectfully suggest that the matter might reasonably be taken up by

the newly-formed Philosophical Society.

## Vetters on Nanking.

III.—On Obligations circulated on the credit of the banker: Notes.

THE function of a bank, as we have already seen, is to substitute gold in place of the obligations of the trader, as the trader's credit is not always sufficient to endow his own obligations with the reliability of a circulating medium. The bank thus stands behind the trader as a reliable institution upon which he can fall back for the means necessary to carry on trade when his own resources have become impoverished through want of credit. Credit enables the manufacturer to buy raw material to weave into cloth; it enables the contractor to make roads, build bridges, construct docks, and carry out all public works necessary to the development of wealth in the country. Without credit it would often be impossible for the farmer to stock his farm or to cultivate the land, but with credit he can buy cattle and feed them, sow his seed and reap his harvest, sell the fruits and repay the loan from the proceeds. Credit, therefore, although not capital, operates in the production of wealth in the same way as capital itself does. The function of obligations formed on the credit of the trader is to make up the difference between the currency and the amount of wealth in the country,—to cover the indebtedness caused by the circulation of wealth; or, in other words, to enable the credit of one individual entrusted by another with a certain portion of wealth which he has not gold to pay for, to meet his indebtedness, and thereby make up the necessary amount of purchasing power of the country.

If the supply of gold were equal to the demand, and could possibly be brought to vary with that demand, the intervention of a circulating medium for the purpose of expending the currency either on the credit of the banker or of the trader would not be necessary, as gold itself would then be sufficient to meet all the requirements of wealth. The supply of gold, is, however, both unequal and disproportionate to the demand, and hence the necessity for a variable substitute to measure for a time the gold value of wealth. It is very apparent that instruments of credit, based either on wealth or capital, are capable of forming a very nice adjustment between the supply of

gold and the demand, and exactly meet the requirements of the currency. While such obligations are doubtless possessed of great elasticity, yet no man, for example, would grant an obligation to pay except for value received and whenever his promise to pay is redeemed in gold it would be at once cancelled, so that there is little probability of the supply ever exceeding the demand. And if the credit of the trader were always sufficient whenever and wherever it might be required of it to circulate trade bills, -that is, supposing the credit of B to be always so undoubted that A would at any time readily take B's bill instead of gold in payment of a debt, there would not then remain any necessity for a note circulation on the banker's credit, as the trader's own obligations would be sufficient to meet all the requirements of credit. In Lancashire and in some parts of Yorkshire, for instance, not many years ago, bills were the generally accepted medium of payment, and these circulated so freely that in those particular localities they often carried more than one hundred endorsements before they became due. And while this confidence in bills existed, bank-notes were seldom used or required in the district. When, however, a bill fails to be recognized as a payment for want of credit, it is taken to the bank and gold is substituted in its place by the banker. Now although the banker can so far economize the use of gold that he is able in a very short space of time with the same gold to utilize the unrecognized obligations of several individuals, yet it so happens that in localities where there is undeveloped wealth and perhaps scarcity of gold, these obligations increase beyond the amount of gold which the banks can supply. As it is the function of banks to collect all unemployed capital it therefore devolves on the banker to supply the required amount of gold to meet the wants of trade; consequently, when the supply of gold falls short of the demand the banker has to devise obligations on his own credit which shall be possessed of all the reliableness and utility of the currency itself. In order to accomplish this object the banker issues notes on the credit of the bank; but as the power of thus indefinitely expanding the currency of the country would be liable to serious abuse, and might lead to dangerous consequences, the Government very properly interferes to regulate the circulation of bank notes.

The issuing of notes in England is altogether confined to oldestablished banks, as the power to create new issues was entirely swept away by an Act of Parliament passed in 1844. Since the 6th of May, 1844, no new bank can be formed in any part of England with power to issue notes, nor even could any bank established before that date, which had not been previously licenced to that effect, subsequently acquire the right of issuing notes. A similar Act was passed in the following year (1845) relative to the Scotch and Irish banks, so that, at the present time the note-issuing banks in Great Britain may become fewer, but cannot increase in number. A banker having the right to issue notes must obtain annually from the Government a separate licence for that purpose for every office from whence his notes are issued. The English note-issuing banks are also restricted to a prescribed limit both in the value of the note and the amount which they issue; -as for example, no bank in England can issue a note under the value of five pounds, nor in the total amount of their issue can they exceed a certain specified sum. In Scotland and Ireland the banks may issue notes from the value of fi to f 100 to an indefinite amount beyond their authorized limit, provided they have gold in their safes equal in amount to the value of notes which may be issued in excess of their limit. These banks are all bound to render an account to the commissioner of taxes on one day of every week of the amount of their notes in circulation; and also once every fourth week an account of their average circulation during the four weeks up to the date of the return. missioners have power at any time to demand an inspection of the books of every note-issuing bank, in order to ascertain whether the banker is rendering a true statement of the amounts required by the Act.

Having now ascertained some of the principal causes which render a circulation of notes from banks necessary, we shall briefly inquire into the character of the obligations themselves, and take a passing glance at their commercial value as compared with trade obligations. A bank-note is simply the banker's promise to pay a specified sum of gold on demand. Although all bank notes under circumstances which may be considered equal, are in themselves essentially adapted to perform the same work, yet portions of the circulation are more liable than the rest to be crippled through circumstances arising from want of credit in the same way as trader's bills are rendered inoperative. This part of the circulation comprehends all notes which are not legal tender. It is in the option of an individual to refuse any note which is not legal tender in payment of a debt, and to demand gold instead of the notes. The only notes which are legal tender in Great Britain are those issued by the Bank of England, and even these are not legal tender anywhere out of England. In England, however, they may be everywhere enforced as a substitute for gold; that is, instead of tendering a payment in gold it may be tendered in Bank of England notes, and the creditor refusing such a payment would be left without any recourse for the recovery of his debt. Bank of England notes are not however legal tender at the source from whence they are issued—that is, by the bank itself; and this circumstance would enable the public to a great extent, if not entirely, to restrain the circulation of these notes. No person, for instance, is bound to accept a note from the Bank of England in payment of a debt (he may demand gold), but when once a note is taken from the bank it becomes legal tender until it returns to the source from whence it was issued, where it must be met with gold. The practical effect of these legal peculiarities is to endow Bank of England notes in their simple capacity as a medium of exchange with all the qualities of gold. In some respects they are indeed superior to gold, as for instance, they do not deteriorate in value through the wear of usage as gold does. Bank of England notes also carry with them a security for their conversion into gold, which is not possessed by a note of any other bank. Note-issuing banks can, as has been stated, issue notes up to a certain limit without reference to the gold in their coffers, -in other words, these banks are authorized by the law to borrow a certain amount of the currency, without either paying interest for the use of the sum borrowed, or giving security to the lender for repayment beyond their own simple promise to pay embodied in the note. The Bank of England has an authorized limit of £,15,000,000 of an issue, which it can use without holding gold against it, but it is bound to keep this limit always fully covered by securities equal in value to the amount of the limit itself. For every Bank of England note in circulation, there is, therefore, either a corresponding value in gold at the bank, or security which may be readily converted into gold. It is not meant to assert as a point of law that these securities could be applied by the Bank of England to liquidate the debt incurred by their note circulation to the prejudice of other creditors of the bank, although from the peculiar constitution of the institution the securities in question would doubtless be always availiable for that particuliar purpose. The important point to be carried in mind is that while the capital represented by the authorized limit of the note circulation of the other banks is entirely diverted into the course of the ordinary risks of banking business, that of the Bank of England is invested in Government Stock. The directors of the Bank have to purchase from the State f, 15,000,000 of the Public Debt, and the State Bonds given to the Bank directors in exchange for the £15,000,000 remain in the Bank as security for the authorized limit of the note issue. Thus, although Bank of England notes are specifically secured, the capital which secures them as well as the notes themselves both continue to circulate at the same time. The bonds held by the directors of the Bank as nominal security of the notes, unlike commercial obligations, are subject to no risk, and have the power to recall the gold at any time to the Bank.

Notes which are not *legal tender* are precisely the same in their nature as the trader's bill which we were considering in a former letter; they are simply a circulating medium based on the currency (not on wealth like the bill), and depending exclusively on credit for circulation. Where sufficient confidence in the ability of a bank to meet its engagements does not exist the notes of that bank will never get into circulation at all. But when once they do begin to circulate they have practically the same effect on the purchasing power of the country as notes which are *legal tender*. In order to follow this effect a little more closely, take a brief illustration of the operation of a bank note. An individual deposits £ 100 in gold with his banker and draws a cheque upon the account thus formed

for £50. If the notes of the bank should be accepted instead of gold in payment of this cheque when it is presented to the banker, after the cheque is paid the £100 in gold which were deposited by the individual and against which the cheque was drawn would remain in the hands of the banker, (although the depositor's account is now reduced to £,50 by payment of the cheque), and would be free to circulate in another direction where notes were not wanted. £,100 of gold which were at first deposited with the aid of the notes of the bank, provided those notes formed a portion of the bank's authorized limit of issue, would therefore be equivalent to a deposit of f. 150 instead of f. 100. And as the notes would travel in one direction in the circulation of wealth, while the gold was accomplishing the same object in another course, the purchasing power of the country would thereby be increased during the time the notes were circulating. A banker issuing his own notes on credit, would therefore be able with the coin which was necessary to carry on his business in one town to carry on at the same time an equal amount of banking business in another place by the aid of his notes in a great measure independent of coin. In this manner a bank with a note issue might carry on twice the amount of business as compared with a non-issuing bank with an equal amount of capital, provided the notes of the former circulated entirely on credit and were not in any way secured, either by holding gold against them or an equivalent in any description of Thus at one place where the credit of the bank was undoubted, the banker would pay away notes in answer to all demands which might be made upon him; and at another place where his notes might not circulate so freely, he would use the gold which was borrowed on his notes. That such a practice as this would be possible in face of the extremely limited amount of the authorized issue of notes in Great Britain may be clearly illustrated by the notes which obtain the most undoubted credit; and by examining the effect of the legal restrictions with which they are surrounded. Take the note circulation of the Scotch and Irish banks, for example. These banks, like the Bank of England, may issue notes to any extent beyond their authorized limit provided they keep a corresponding value in gold in their coffers for whatever amount of notes they may issue in excess of their limit. Now it may be said regarding the circulation of a bank note, that when once the note is taken from the bank it has a tendency to return again to the source from which it was issued by the shortest road possible. In order to facilitate the speedy return of their notes, the banks in Scotland and Ireland have established a vast number of branches, even in the smallest villages. As the law for watching that the authorized limit of issue is not exceeded only takes notice once in the week of the amount of notes in circulation, it is therefore quite possible for these banks during five days in six to issue any amount of notes they may require irrespective of gold altogether, as their circulation would have returned to the bank before the close of business on the sixth day

when the legal statement of their issue had to be made up. It is not meant to insinuate that the banks referred to are guilty of this irregularity; but only to show the elastic nature of their issue notwithstanding the legal barriers by which they are hemmed in, and that at times of great pressure such an evasion of the law would be possible without carrying with it any trace whatever of an actual violation. The extremely local character of an English bank note would render such a practice impracticable in England, as sufficient reliance could not be placed on the prompt return of the notes to the bank.

(To be continued.)

## To the North Wind.

All Hail! North Wind! Thou strong, rough blast of God, Born in the tempest, 'mid the snow and ice Of Arctic desert, in that awful calm, Sublimely still, ne'er trod by vent'rous man! Descend thy fastnesses! Awake! Arise! Lift thy defiant head! Make bare thy might! Gird on thy strength! Expand thy god-like wings! And on thy far-spread pinions launch thee forth, Glorious in pow'r, triumphant in thy strength! Rush on-unmindful of thy fatal track, By Desolation mark'd, and whirling Sand, Remorseless Frost and pitiless-driving Hail, And Lightning's lurid leaps and deadly play, And God's great Thunder, volleying thro' the vault Of Heav'n's expanse, reverberating loud! Crash thro' the forest o'er the startled oaks! Fell the broad pines and rive their lofty crests Of pride and haughty grandeur! Let thy strength Crush out that pride and force them to thy feet! Behold! you stalwart elm resists thy course And bars thy way! Assert thy prior claim!

Grapple with the usurper! Dash him down Upon the trembling flow'rs that quake beneath His rocking boughs! Assail his solid base! With stern, o'ermastering will tear up his roots That, delving far below, drink virtue rare From out primeval terrain that of eld Nourish'd the Mammoth huge, before the Flood! Reck not the rack and ruin thou hast made As Nature weeps and mourns her forests strown Upon their mother's bosom! Speed thy flight To that vast Ocean which thine advent waits As his familiar playmate, and his friend. But whilst thou toyest with his billowy strength, In giant playfulness, as, wrestling close, In vice-like grip, ye plunge and wildly roar, Trembles the awe-struck globe and shakes aghast. Even thy foundations, O thou Wondrous Deep! Are mov'd from out their places when ye strive! Thy rough hand laid on Ocean's curling crest Joins issue for the mastery of the hour. Hail! Mighty Wind! I hear Jehovah's voice Re-echo in the thunder of thy tones, For art not thou His very nostrils' blast, His Messenger of Wrath, thro' whirlwinds borne, The Prince of the Tornadose, and the Chief Of countless squadrons of the Winds of Heav'n? But yet I fear thee not. My Father's hand Controls thy path, and ruls they desperate pow'r. He checks the tempest of thy furious course; He binds thy rage; and holds thy trusty friend, Old Ocean, in His own almighty grasp; Exacts your homage and directs your way.

## From Fort Pelly to Winnepeg.

By H. L. Allen, C.E.

I.

When the news of the annexation of the Transvaal arrived in England, it would, I fear, have disgusted not a little the inhabitants of that flourishing territory to have found that scarcely one Englishman in a thousand had any but the vaguest idea of the geographical position of the newly-acquired region. "It is somewhere out at the Cape," said the British public, and with that knowledge they rested content.

Far be it from me to offer an apology for the ignorance of my countrymen generally, but, perchance, something in extenuation may be pleaded on their behalf when I venture to opine that scarcely any of the educated inhabitants of the South African Colonies are aware of the position and extent of that vast region, which, within the last few years, the Dominion of Canada has acquired from the Hudson's Bay Company—a region whose lakes alone cover more than 35,000 square miles, and whose largest river, the "Mackenzie," is nearly three times the length of the Orange River. If it be not a rich and fertile country—and I fear that its most partial admirres would hardly assert that much—still the extent over which "The Company of Adventurers" trading into Hudson's Bay until quite lately bore sway, at all events, leaves nothing to be desired on the score of size.

I remember once, when on board of a Lake Huron steamboat, being seriously informed by a "prospecting" Yankee, that if England "was jest dropped in this here lake toe float, it would take a mighty smart man to find it again; yes, Sir." And, alas! I was obliged to admit that there was a certain amount of truth in the remark. In deference to my readers, I will not conjecture what might happen in the event of the 200,000 square miles of the Cape Colony being dropped into the middle of the 2,800,000 square miles which constitute the Dominion of Canada.

I may be pardoned, perhaps, for having expatiated so much on the vastness of this region, if I say at once that it was this very vastness which had formed an irresistible attraction to me, and had led me to the determination of venturing into "The Great Lone Land," as Major Butler in his most interesting work has very happily named

what is now called the North-West Territory.

It was not, perhaps, a prudent step to go straight from a residence in the Cape Colony to a country where, though in their short summer they, in common with both Upper and Lower Canada, enjoy a temperature not much less than that of a semi-tropical region; yet in winter the mercury actually stands at 28° below zero—in other words,

it registers 60° of frost; and when in some parts, notably Fort York, a trading post of the Hudson's Bay Company, the ground is frozen to the depth of sixteen feet even in the summer months. But three years of a roving life in Kaffraria had somewhat unsettled me, and I found myself at the beginning of the last London season longing to get away from the trammels of civilization, and to exchange a frock-coat for a "wampum" shirt, and patent-leather boots for "mocassins." It took but a short time to make my preparations and effect a start; and so it came to pass that after five months from my departure from England, I found myself at Fort Pelly, a trading outpost belonging to the Hudson's Bay Company, situated near the Great Sascatchewan, a river 16,000 miles long, which flows into Lake Winnepeg. In the interval referred to, I had been travelling in the North-West Territory, enjoying such shooting as rarely falls to the lot of a sportsman. I had been among the Iroquois, the Sioux, the Assineboine, the Cree, and Black Feet Indians. I had seen vast herds of buffalo roaming over countless acres of dreary, desolate prairie. I had passed over miles and miles of country laid utterly waste by the ravages of locusts; and where from every swamp and fen armies of mosquitoes raged such fierce war against man and beast that I cannot but think that, what with locusts, mosquitoes, and predatory Indians, the unfortunate emigrant, whenever he does go to the Far West, will, as our Transatlantic cousins say, have a "real bad time of it." And now I was turning my steps homeward. There was, indeed, no time to lose, if I intended to return to England before December. Already immense flocks of wild geese and other aquatic birds were winging their way to the south. The nights were getting intensely cold, and the Sascatchewan, though a very rapid river, was beginning to be covered with ice, and at any time a deep fall of snow might be expected, which, when once fallen, would not disappear until the end of May in the next year.

This latter occurrence would only have necessitated my journeying to Fort Garry, the nearest civilized place, by a sleigh drawn by dogs instead of a cart. Still I had nearly 2,500 miles to traverse before reaching Montreal, where I intended to embark for England; and it was necessary, therefore, to arrive at the abovementioned town before the River St. Lawence was frozen over, and the navigation stopped for the winter. The distance between Fort Pelly and Winnopeg (or Fort Garry, as it is sometimes called) is about 350 mailes, and no wheeled vehicle could convey me from one to the other with any chance of returning before the snow fell and blocked the

the winter.

My only chance of going south was to travel with a train of Indians who were daily expected at Fort Pelly with the winter provisions, and who would at once try to return to Fort Garry before the snow fell.

My feelings of delight can be easily imagined when, early on the morning of Sunday, the 16th of last October, the long-looked-for train was seen crossing the Sascatchewan, and in a short time had

entered the heavily-barred gate of the fort.

The train consisted of six two-wheeled Red River carts. These carts are made entirely of wood, no iron at all being used in their construction. The wheels, though made with spokes and felloes, have no tires, and yet manage to hold together in some mysterious way; and even the linch-pin is not made of iron. As vehicles, they are as superior to the ordinary vegetable wagon that one sees in use in Kaffraria and some parts of Europe, as a Long-acre brougham is to a New York sulky. The first cart was drawn by a starved pony, harnessed with green hide; the two carts that followed next had each one ox, harnessed like the pony, in their shafts; and it was evident that the oxen had no more difficulty in drawing their load (about 9 cwt.) than the ponies who were in the three remaining carts.

Though it has been my privilege to have seen most forlorn specimens of horse-flesh among both the Kafirs in this country and the "broom-dashers," as they are called, who lead a rough life in the English New Forest, yet never in my life before had I seen such equine curiosities as these ponies in the Indian train. They baffle description altogether. The only animal that they reminded me of was a starved cat, with the hair rubbed off; and yet they turned out most useful animals, utterly impervious to cold, and able to pick up a

living where an ordinary donkey would die of starvation.

In charge of the train were three half-breeds and one full-blood Indian. The former were a cross of French-Canadian and Assine-boine Indian, and consisted of an old man and his two sons-in-law. The old man could speak a most extraordinary French patois, in addition to Assine-boine, and some few words of English; but the two younger men spoke a mixture of Santeux and French, using an equal proportion of each language in every sentence; and this very hybrid language I found very difficult to understand. The full-blood Indian was a young Santeux of about fifteen, with whom I had the best possible reasons for not being on "speaking terms," having no language in common between us.

In about three hours after the arrival of the carts, they had discharged their loads, and were ready to return. I had agreed to pay the old half-breed ten dollars (about £2) for my passage to Fort Garry; and having packed my provisions and luggage on one of the pony-carts, amid farewells and hearty good wishes for my long journey, filed out of the gate of the fort with the rest of the train.

The day was drawing to a close as we approached the Sascatchewan. Behind us down the path we had come was the fort, standing out in all the splendour of a northern sunset, the Canadian Ensign fluttering from a lofty pole in the centre of the square; around us was the prairie, and straight down the path we were pursuing—far away across the Sascatchewan, over the tops of the pine-trees on the extreme verge of the horizon—far across land and sea, but still, if the compass was to be depended upon, and degrees of longitude had a

meaning, straight down our very path lay the largest city in the world—London; and yet, thanks to the influence of the Gulf Stream, while the country that I was travelling in was already fast-bound in icy fetters, the trees in Hyde Park had scarcely shed their autumn leaves. At the banks of the Sascatchewan we halted; our forlorn beasts were hobbled and turned adrift to pick up a scanty meal among the osiers. The half-breeds set to work to procure enough wood to keep up a huge fire during the night; and after a hearty meal of pemmican, washed down with tea, one and all lit our pipes, and rolling ourselves round in our blankets and furs, with our feet to the fire, dropped off to sleep.

And thus commenced a journey of ten days, which, when I look upon, seem to have concentrated in that brief space enough of hardship, danger, and discomfort to suffice me for the rest of my life.

#### II.

It was about five o'clock in the morning when I awoke, with my joints stiff, and my teeth chattering with the cold. The stars were still shining, but in the east a weird glimmer announced the coming dawn. My companions had ere this unrolled themselves from their blankets, and were up and astir. The three younger ones had started off to bring back the horses and oxen, while the old man was busily engaged in superintending the boiling of the kettle, which was to furnish each of us with a pannikin of hot tea. By the time that I had strapped together my blankets and buffalo robes, our beasts of burden had appeared in sight. The kettle was taken off the fire, a handful of tea thrown into the boiling water, and then, getting what comfort we could out of a half pint of tea each and a piece of heavy damper, we harnessed our cattle, and "made tracks" across the Sascatchewan. A very unpleasant affair this said crossing was. First went the old man with his pony-cart, slipping and sliding down the frozen incline to the river. The pony did not half seem to like it, but the terrific whacks which he received from his master, coupled with the weight of the cart and the slipperv state of the track were too much for him, and down the incline he went, crashing into the ice, which extended some twenty feet from the banks, towards the centre of the stream.

"Hola, Rouge! Ah, sacripan! foulette le, foulette le; beat um, beat um," yelled the old half-breed to me, as soon as he had got his cart into the stream; and, taking heart of grace, I did my best to obey his injunctions, and showered such a rain of blows upon Rouge, my pony, that, with a grunt and snort, he shot down the incline, crashed through the ice, and soon found himself in where, I presume, he considered his proper position—viz., with his nose over the tail of the leading cart. The other carts followed in my wake, without coming to grief. In the middle of the stream the water was nearly over the shafts; but I had carefully wrapped my buffalo robe round mv

feet, and so escaped getting wet. On nearing the other side we had another crashing through the ice at its edge, and then each of us jumping from his cart as it got clear of the water, after any amount of pulling, whipping, sliding, and slipping, we found ourselves safe on the top of the bank, and pulled up to give our poor animals, what Paddy would call, "a bit of a sob," after their exertions.

Before we could start again, the old half-breed had caught sight of a flock of prairie fowl, and in an instant he had his long gun out of the cart, and, pulling off the numerous rags with which it was bound round, started off to get a shot at the birds sitting. I also got out my gun, and, slipping a couple of cartridges into it, followed at some distance in his steps, hoping to get a shot as the birds rose. After dodging about for some minutes around the stunted osier bushes among which the birds were feeding, the old man got two birds in the same line, and then taking a most deliberate "pot" shot at them, kneeling to take his aim, he let drive, and bowled over the pair. The others got up with a whirr, giving me two easy shots, which added another brace to our bag, and then, as the half-breed ran to pick them up, another outlying bird came past me down the wind at a tremendous pace—a very long shot-in fact, so far off that the half-breed was considerably astonished when the bird dropped to my left barrel. It was the first time that he had ever seen the effects of a choke-bore, and was not a little puzzled to account for them. With this welcome addition of five birds to our commissariat, we returned to our carts, and jogged slowly along the track, until about ten o'clock we drew near a muskeg, or marsh, where a few stunted trees promised us fuel for our fire, and where we could obtain water for ourselves and beasts. Loosing the latter from their very primitive harness, it did not take long to cut down a tree, which soon provided us with a roaring fire, whose genial warmth went far to restore sensation to our numbed and stiffened limbs. The big pot was put on, the Indian boy having filled it with water from the swamp, and the five prairie fowl were soon relegated to its capacious interior.

I had now time to observe more particularly my companions, for I had not paid much attention to any but the old man. The latter was a little, wizened, yellow man, clothed from head to foot in a blue capote, an article of dress in much favour with "voyageurs." His two sons-in-law were fine big men, with long black hair, but with the dirtiest and most unpleasant faces that I have ever seen; in fact, they had a deal more of the Indian than the European about them. Their sole resource seemed to be expectorating, and this accomplishment they exercised with a fluency and impartiality rarely attained to by even a citizen of the United States. The full-blood Indian was a fine boy, dressed in a deer-skin coat ornamented with beads and wampum. He wore a fur cap on his head, from beneath which came his hair in two long plaits falling over his shoulders, of a length which might have made him the envy of even a New Brunswick young lady, and these latter are favoured

Vol. XV.

with a luxuriance of tresses beyond the common lot of their sex. During the journey he had been busy plucking the fowls, and he now sat watching with stolid gravity the operation of boiling them. This desired end being at last attained, the half-breed took the pot off the fire, fished up a fowl on the end of a sharp stick, tossed it across to me, and then each made a dive for himself, and fished out a carcase. Then came a pannikin of tea and a damper each, and our breakfast was complete. Scarcely ten minutes were allowed for the enjoyment of a pipe after the meal, and we were again on the track; nor didwe halt again until about two o'clock, when we lighted a fire, had a hasty meal, and then resumed our journey with all speed, as we had some ten miles to go before coming to a resting-place for the night, and our wretched quadrupeds would take at least three hours to do this distance.

We were now passing through a desolate region; around us were strewn the whitening remains of buffaloes, which showed plainly enough how plentiful had been the herds only a few years before, and now they had gone for ever. The coming of the white man had driven them away, and laid desolate the prairie, where, within the memory of even the youngest of my companions, vast herds had roamed, giving food, raiment, and even the means of shelter to the wandering Indian. And now the buffalo had gone, driven back by the advent of the white man, to the verge of the Rocky Mountains, and soon, perhaps, to be altogether exterminated; and the red man had followed in the steps of the animal which had supplied all his wants. Over both alike the fate of extinction seems to be impending, and all that can now be done is to preserve from molestation, as far as possible, the Indians who yet survive, and to prevent the wanton destruction of the animal that has been from remote ages their companion. And this duty-for a duty it is-has been performed to the best of their ability by the Canadian Government, and all honour to them that this should be the case, separated as they are from the North-West Territory by such a long distance, and at present having to contend with financial embarrasments. But now no efforts of an enlightened government can actually either save Indian or buffalo. Some there are (and of the number are many who sympathise with, and gush over, the negro-a being far inferior to a red Indian in every possible respect) who will say on this same subject of extinction, "It is well; both the red man and the buffalo belong to an earlier epoch of the world's history, and they must succumb and disappear before the march of civilization."

Civilization!—save the mark! If the license of a frontier town, where cowardly murderers walk about unmolested—where every honest man goes in fear of his life—where justice exists not even in theory, and where robbery, with violence, is the avowed profession of half its inhabitants—if this is civilization—and, remember, this is the civilization, or the parody on it, which is

presented to the Indian—is it to be wondered that, from time to time, goaded beyond endurance by the injuries and cruelties which cry aloud to heaven for justice, the Red Indian has turned round and avenged himself on a set of scoundrels, who, if they had chanced to have fallen into the hands of a properly-constituted Government, would have been hanged instead of scalped. "General Grooke was a boss general, he was," said a rowdy ruffian to me at Fisher's Landing. "I tell you, sir, he never spared woman or child." And this sentiment was much applauded by the other citizens of the United States who happened to be present. Whether the man he referred to had done so or not, the remark showed sufficiently the prevailing sentiment.

However, a far abler pen than mine has before this taken up the Indian question, and it is, no doubt, to Major Butler's representations that the Indians in Canadian territory owe very much. It was quite late when we came down to the banks of the Sascatchewan again, and, though the water was not very deep, we had a most unpleasant crossing, as, owing to the roughness and steepness of the banks, we had, after getting down into the water, to ascend the stream some two hundred yards in search of a landing-place. However, all troubles must come to an end, and about an hour after the crossing of the stream, I had finished my humble meal of tea and pemmican, and lay, rolled up in my robe with my pipe in my mouth, watching the Indian boy making arrows in the firelight, till the scene became indistinct and faded out, and the murmur of the conversation ceased, and I fell asleep, to dream that I was in an Indian cart which would not come out of the river.

(To be continued.)

## The Unmes of our Libers.

SIR BARTLE FRERE, when at Port Alfred, took occasion to inquire of certain "Bushman" prisoners if they understood the meaning of certain words given as names to the rivers on the coast, from the Gamtoos to the Bashee, as persons who had studied the subject were of opinion that the names were of Bushman origin. The prisoners did not recognize the names, and the conclusion arrived at was that the names must have been derived either from the Hottentot or Koranna language. This is the report of what took place:—"On Saturday morning the party made a more careful inspection of the works, and afterwards visited the convict barracks. His Excellency expressing a wish to see the prisoners who were of the Bushman race, some twenty of them were told off from the two hundred and sixty or two hundred and seventy who were paraded before him. He also desired to hear them speak in their own language, and for

this purpose they replied to questions addressed to them in Dutch by Dr. Atherstone in their own patois. They were also asked by that diligent inquirer if they understood the meaning of those words which have been given as names to the rivers on this coast, from the Gamtoos to the Bashee, ethnologists and those who have studied the subject having been hitherto of opinion that such names as the Gamtoos, Zitzikama, Coëga, Gora, Kowie, Keiskama, Gonubie, and the Kei were of Bushman origin. These prisoners, however, knew of no such words in Bushman nomenclature, and the only conclusion they could come to was that they were all of Hottentot or Koranna derivation. This will probably turn out to be the case."

The subject is an interesting one, and the Governor having started the inquiry, it would be a pity to let it drop with the aforementioned conclusions. It should be no matter for surprise that the Bushman prisoners did not recognize the names as belonging to their language, for, pronounced as spelt in the above quotation, most of the names would probably be unknown even to the Amaxosa (Kafirs), by whom the coast country was inhabited prior to and during the early part of the present century; and it may be that they named the rivers mentioned above, though, if as ethnologists suppose, the coast country, from the Bashee westward, was first occupied by the Hottentot, and that the Amaxosa came into it from the east, and forced them out, or destroyed them as a people, the names by which the rivers are known to the Amaxosa may have been of Hottentot origin. The chief reason assigned for the belief that the rivers westward of the Bashee do not bear Amaxosa names is that they are most of them pronounced with "clicks," whereas the pure Amaxosa language is presumed to be free from "clicks." Whether or not this presumption is a correct one, I am unable to say; but this much is certain, that "clicks" are in common use now among the Amaxosa, and have been for a very long time, to such an extent, indeed, that missionaries and others, who have studied the language and reduced it to writing, have appropriated three out of the twenty-six letters of the alphabet to represent them. Did the Amaxosa tribes (I include under this denomination all the tribes known to us as Kafirs, Fingoes, Tembookies, &c.) import these "clicks" into their language from that of the Hottentot or the Bushman or the Koranna, and, if so, from which of them?

There are, perhaps, men amongst us who can answer this question, and adduce satisfactory reasons for the faith that is in them; and, therefore, it is that I now throw out the suggestion, that such as

can should do so.

Be this, however, as it may, it is more than probable that the names by which the rivers above mentioned, and others, between the Bashee and the Gamtoos are now known, are none of them purely Hottentot, Kafir, or Bushman. Some are, perhaps, mixtures of two or more of them. Some are, undoubtedly, such as the Dutch farmers have designated them—in an endeavour to keep as closely as

they could to the—to them—unpronouncable native names, and others are names first given by the Dutch, and after the arrival of the British settlers, transplanted into English, without retaining the object or meaning of the Dutch name. Among the rivers which I assume to have mixed names, or names composed partly of one language and partly of another, are the Zitzikama, the Kraggakama, and the Keiskama. Some persons, however, entertain the opinion that these are pure Hottentot names, and that Kama means water or river, while Zitzi, Kragga, and Keis imply, perhaps, the colour or general appearance of the water, as is the case with the native names of the Orange and Vaal Rivers. If this be so, then, probably, the terms Zitzi, Kragga, and Keis should be pronounced with one or more "clicks." I do not know whether the Hottentot word for water is kama, but I can remember a time when the term "kama" was in ordinary use among the Hottentots when conversing in Dutch, not for the purpose of denoting water, or anything else in particular, but thrown in as it were by way of emphasis to give force to an expression. The names by which the Kei, the Gonubie, and the Keiskama are known to the Amaxosa are "Cnyba," "Qunubi," and "Xysi" (I am not sure that the spelling is exactly correct, but we have here the three particular clicks represented by the letters C, Q, and X). The first syllable of Cnyba—Cny—pronounced without the click would not be much unlike Kei, that of Qunubi, i.e., Qu, Go, and of Xysie, viz., Xys-Keis; and I, therefore, arrive at the conclusion that the now known names of these three rivers are among those where the Dutch have endeavoured to retain, as nearly as they could, the original names known to the natives. Of the rivers now bearing English names, taken over from the Dutch without reference to historical meaning, may be mentioned the Sundays, the Bushmans, and the Buffalo; the Dutch names were "Zondags," "Bosmans" (or Boesmans), and "Buffels." It is probable that "Zondags Rivier" derived its name from the fact that a family bearing the name of Zondag resided somewhere on its bank. There are people of that name still living in the district of Humansdorp. If the original Dutch name of Bushmans River was Bosmans Rivier, that name might have originated in the same way, Bosman being a well-known name among the Dutch inhabitants; but if it was Boesmans Rivier, then, probably, it arose from some other circumstances—such, for instance, as that Bushmen were living near it, or something else relating to those people. And the Buffalo might have been named Buffels Rivier in consequence of buffaloes having been shot near it, or having been found in large numbers there; or, possibly, because the Boers found living on it some ill-tempered, cross-grained people, such as they would ordinarily designate by the term "buffel" or "buffelagtigen menschen." King William's Town is commonly designated by the Kafirs "Qoncni," and Graham's Town "Irini" (the letter r being pronounced as the letter g in Dutch); but whether these names are those of the towns or

of the rivers on which they stand (the Buffalo and the Kowie), I must leave to others to decide.

In connection with this subject, another matter may, perhaps, be mentioned as bearing upon it, viz., why are the people we call Bushmen so denominated? I fancy that they in their natural state would no more recognize themselves by the term than the Kowie prisoners did the names of the rivers. We-the English-have, of course, taken over the name from the Dutch, and without, apparently, stopping to consider whether Bushmen in English is synonymous with Bosjesman or Bosjesmenschen in Dutch. The term Bushmen would seem to imply people who live in woods or forests, which these people, in their wild state, are believed not to do, but rather live and roam about in the open country, retiring into mountain fastnesses, rocks, and caves when necessary for safety. The term Bosjes (pronounced Bossies) in Dutch implies "little bushes," and it is possible that the appelation "Bosjesman" may have been given to these people because they inhabited the Karoo parts of this country, or were first discovered there. If so, then it would seem unlikely that they gave names to the rivers along the coast, from the Gamtoos to the Bashee.

S.

### Mellowing.

As fruit, O Lord! that by the gardener's hands
Is tended carefully from hour to hour,
Drawing its strength, in ways none understands,
Its scent and sweetness from Thy sun and shower,
So may our souls by Thine all gracious power
Grow daily richer, wholesomer, more fair,
Changing from crude to ripe, to sweet from sour,
Enjoying fuller light and freer air:
If still unfaltering our creed we swear,
Less arrogant to call all other wrong,
More willing with a weaker one to bear,
Proving by gentleness that we are strong;
Beguiling burdened hearts of half their woe,
Refreshing those on pilgrimage who go.

T. W.

## Colonial Comparisons.

#### SOUTH AUSTRALIA,\*

In the Cape Monthly for August last I directed attention to Mr. Harcus's valuable work on South Australia. Perhaps some apology is needed for so many extracts being made, but my object has been to present to Cape readers the most interesting and instructive facts respecting the Australian settlement, with a view to useful comparison with our own colonial circumstances.

Mr. Harcus devotes the eleventh chapter of his volume to the subject of "Land." The extracts on this subject must necessarily be rather lengthy, as it in fact gives us the history of the material progress of the Colony from its commencement; and we can well imagine that our own progress would have been somewhat similar had colonization commenced at an earlier period with such free institutions as the South Australians, as well as ourselves, now possess.

"The squatter's life," says our author, "in the beginning, was not without a spice of danger. It required continued vigilance and activity to guard against, and a brave heart and a strong arm to meet, when it actually came. In those days the natives were enemies not to be despised, and before they learnt to fear or trust the white man they were not slow to resent his intrusion upon their hunting ground. The aborigines had been accustomed to kill for food all the indigenous animals found in their country, and it was hard to teach them that they had no right to touch the sheep and cattle of the squatter. They learned this in the end by a rough and bitter kind of experience, but in the early days of squatting they were a constant dread and annoyance to the settler."

For our frontier colonists especially, there is food for meditation in these last words; and doubtless comparisons will be made between the subjection of a few miserable Australian natives and our Kafir wars, as also the difference of the claim this Colony has on the British Government for military aid, whilst we abstain from forcibly occupying the land in possession of the aborigines. Mr. Trollope, I suspect, will find the Kafirand Zulu different beings from the people of Frazer's Island at the mouth of the Murray River. "To my eyes the deportment of the dignified aboriginal is that of a sapient monkey imitating the gait and manners of a do-nothing dandy," are that traveller's words; and though it must be confessed that every effort is made to show an unbiassed view of the black and white question, his leanings are more towards the views of our trekboers, who believe in the insurmountable difficulty as to "Cain's race," than to those on whom the mantle of Wilberforce, Clarkson, Buxton, and Brougham has fallen.

"When the first colonists arrived," says Harcus again, "the country was parched up, the ground hard-baked and apparently unworkable

<sup>\* &</sup>quot;South Australia: Its Resources and Productions." Edited by WILLIAM HARCUS London: Sampson Low, & Co. Cape Town: J. C. JUTA.

For some time the early settlers were content to sit down with the conviction that agriculture on such a soil and with such a climate was impossible. A great deal of suffering resulted from this false inference. The most important of all necessaries of life had to be imported at a ruinous cost from Tasmania, and flour was actually sold in Adelaide at £100 per ton. Some daring colonists, however, thought they would honestly try whether wheat could not be produced on the Adelaide The land was tilled, the seed deposited, and the result anxiously looked for. Happily wheat-growing became a success from the beginning. Writing as I do now when the result of the last harvest enabled us to export something like 180,000 tons of breadstuffs, after supplying our own wants, it seems almost absurd to think that the early fathers and founders of the colony should ever have entertained a doubt as to the productiveness of the soil and climate. For a long time agriculture was confined within a radius of say twenty miles of Adelaide, and persons who ought to know gravely asserted that beyond that radius agriculture was impossible. These persons, however, proved to be false prophets. During the last harvest the country one hundred and fifty miles and more to the north of the metropolis has, without the cultivation necessary in England, produced splendid wheat averaging from fifteen to eighteen bushels to the acre, and along the whole distance from Adelaide to these northern areas, the land is covered with prosperous and industrious farmers.

"The total area alienated by cash sales is 4,319,102½ acres for which has been realized £5,452,581 9s. 5d. Selections of land on credit at 714,000 acres, amounting to £934,000 in value have been made. At the close of the year there were 1,330,000 acres under cultivation, of which 839,000 were under wheat. The climate is capricious for wheat—the average annual yield varying considerably. The plagues from which the farmers suffer are drought, red rust, take-all, and very rarely locusts.

From 1870-71, 6,961,164 bushels produced, 11'30 bushels per acte, 5s. od. aver. price.
1872, 3,697,060 ,, 4'20 ,, 5s. 6d. ,,

,, " 1873, 8,735,915 1874, 6,178,816 11,30 5s. 5d. ,, ,, 22 7.52 11.45 5s. 7d. 22 ,, 22 1875, 9,862,693 os. od. 22

A moderate estimate of £10 per ton gives £1,800,000 as the result of the

harvest after supplying local wants."

We learn from the preceding that there were disbelievers in South Australian wheat-growing, as there were amongst us with regard to the Angora goat, and as there are still with regard to silk and the olive; and if anyone for whom figures are pleasant literature, will compare our average produce per acre with that of South Australia, dry years, rust, and all—let alone the take-all,—I think the discriminate reader will find no reason to despond.

"The cost of cultivating wheat in South Australia is very small compared with that of other countries. Anything like scientific farming is rarely if ever attempted in the Colony. The old saying, "Tickle the land with a hoe and it laughs with a harvest," is almost literally true here. Virgin soil is ploughed up three or four inches deep, and often even without fallowing, the seed is thrown in, and should the season be moderately favourable, a fair crop rewards the labour of the husbandman.

This goes on from year to year. Anything like a rotation of crops is

never attempted.

"There are soils in South Australia which have been annually cropped with wheat for twenty or twenty-five years, and yet last harvest they

produced as abundantly as ever.

"The expense of cultivation is small, and the gathering of the crop when fully ripe costs a mere trifle. The greatest invention ever produced for the agriculturists of South Australia is Ridley's reaping machine, which reaps and threshes the wheat by one simple process. A machine of this kind could be used only where the climate is dry, and where the grain is allowed to ripen and harden in the ear. It may safely be said that the cost of farming has been reduced to a minimum in South Australia."

This last statement is, it must be confessed, rather startling, and one would like to hear the opinion of any Cape agriculturist who may have visited Australia. Scratching the soil, throwing away the straw, and a reaping and thrashing machine, which one would think must cause great waste of grain, also spoiling as it would do in this country good permanent grass fields by continually turning up virgin soil-seems questionable economy. Nevertheless, there was a time when bad and cheap ploughing where land was of comparatively little value, though sneered at by some, was not quite disapproved of by such men as Mr. Currey, of Langkloof, or his neighbours the Cape Boers. The successive grain crops on land cultivated during twenty or twenty-five years without manure will be nothing new to the inhabitants of the two Olipants' Rivers; but then we were accustomed to ascribe the fertility to fresh inundations bringing rich virgin Karroo soil to form fresh layers like the overflowing Nile, or, in other instances, to deep accumulations of vegetable matter or humus; but we read of none of these causes of fertility in the Colony spoken of.

The twelfth chapter gives an account of the manner in which public lands are disposed of, and concerns the intending emigrant from Europe more than our Cape farmers, though in principle the plans are nearly identical with ours, except perhaps that the sheep runs are not bought outright and the occupiers are not exposed to such severe loss as the

Wodehouse farmers are now alleged to be experiencing.

The thirteenth chapter gives a description of the "Hill River Estate," which if space could allow, would be worth inserting without curtailment. We are told that this property of Mr. C. B. Fisher is situated eighty-eight miles north of Adelaide, is 60,000 acres in extent, lightly timbered with "sheaoak" and gum. The property is worked as a sheep-breeding establishment and a wheat-growing farm, with the ultimate end in view

of preparing the land for sowing down lucerne and prairie grass.

After describing the buildings for overseers, labourers, sheep-washing, &c., you are told that the number of sheep shorn is 50,000, the shearing-floor accommodating forty shearers. The Hill River wool is of the merino combing description; the clip last year was 9 lb. in the wether to 3½ in the lamb in the grease, for which an average of 14½d. was obtained. Sheep-washing is not general in the colony through the scarcity of water. Amongst some fleeces selected, during the late shearing for the Sydney Exhibition, one two-toothed merino rams-fleece weighed 17½ lb. and a four-tooth 21 lb.

Two hundred short-horned eattle have been lately introduced. Two hundred horses are at present employed on the estate. The cultivated land contains this year 4,250 acres of wheat besides forty acres of peas for horse-feed, and a quantity of barley. The ploughing was performed by thirty-four horse-teams drawing a double plough each, doing two or three acres per day, but with teams nearer their work three and a half acres per day will be accomplished; one man is allowed to each plough to manage both driving and guiding. Ploughing is done eight inches deep at first.

The seed which is of several kinds, to ascertain the best, was sown the first week in June, with six of Adamson's twenty-two feet broadcast machines, sowing under the management of one man forty acres per day each. The pickling used is blue stone, and an ingenious dipping machine is used, by which a bag at a time can be done with much rapidity. The

harrowing is finished at the rate of 500 acres per day.

When the wheat is ripe the strippers are then set to work, emptying on the roads at each end of the 200 acres blocks. Each stripper is drawn by four horses, driving and guiding being managed by one man, and each machine does from seven to eight acres per day according to the weather. Last year twenty-seven strippers were employed, but this harvest ten additional new ones will be required. About one winnower to three strippers is required on the headlands for winnowing, which is done by piecework, the men obtaining one penny per bushel for putting the wheat through once, and twopence for twice. From the winnowers in the field it is carted in bags to the blowers and screens, from which it is bagged, sewed, and passed into the barn.

The land under wheat last year was 3,050 acres, which yielded at the rate of fifteen bushels; twenty-five acres of peas yielding forty bushels

per acre; and sixty acres of barley giving thirty bushels.

The quantity of wheat cut for hay last year for home consumption was six hundred tons, and this year eight hundred tons will be required. The sample of wheat (at the last show in Adelaide) purple straw, weighed sixty-eight pounds. At one steading there is a chaff-house, with chaff-cutter cutting one ton per hour.

About seventy hands are constantly employed, and during harvest and

shearing two hundred.

The chapter ends with the following regulations among others; they are posted in the various buildings:—"Working hours, all hands to rise at five a.m. when the bell rings; breakfast at six; dinner noon; work to six in summer, till five in winter; supper at seven. Wages, Ist class, 20s. per week, others from 16s. to 18s. Wages paid every four weeks. Any one found neglecting to tend and feed the horses properly is discharged at once, and forfeits all his wages. Anyone bringing intoxicating liquors on the premises forfeits wages due and discharged. Any found smoking near the stacks or stables, discharged and proceeded against under the Bush-fire Act. Each man at the time of hiring is required to bind himself to the Regulations."

To keep 50,000 sheep on 30,000 morgen comprised in one block is more than can be done in any part of this Colony, but as sheep (the wethers at any rate) bearing an average fleece of 9 lb. even in the grease, cannot but be of a large and heavy carcased variety, and as "all flesh is grass" the

pasture must be far richer and more abundant at least in some spots in

Australia, than anything we have to boast of.

Taking the whole flock as averaging 6 lb. per fleece, we have 300,000 lb. of wool at 17½d, or a little over £20,000 sterling. 4,250 acres of wheat producing fifteen bushels per acre, or upwards of 60,000 bushels at five shillings, £15,000 sterling, without saying anything of the increase in the flock. This must after every allowance for expenditure leave a larger remainder than any emigrant to South Africa need ever expect from sheep-breeding and corn-farming on any farm of the same extent.

Apparently wheat answers better in South Australia than barley, and we see no mention made of oat-hay; the reason is not stated. Eight hun-

dred tons of wheat consumed as forage shows the fact, however.

The number of hands employed to tend and shear so large a flock and to cultivate so large an area of land appears, in comparison to our requirements, very moderate; probably, enclosures, better machinery, and the extensive scale of operations, as well as the better quality of labour, though high priced, will account for this. I am afraid, too, that with our coloured labourers the above stringent regulations, with the loss of wages insisted on, could not be introduced, except very gradually, even if the four weeks' pay were doubled. Our farmers are, I dare say, very much to blame as well as their servants,—the writer of this does not exonerate himself. Wages should never be paid in advance, and as the market price of farm produce rises we must make up our minds that labour will become scarce, and liberal wages are the natural consequence.

Then comes the fourteenth chapter. It occupies four or five pages in describing the hard fight a Mr. Torrens had with the lawyers to get a system of transfer and registration of land introduced, which succeeded the old English law—since also, I believe, greatly modified in spite of lawyers in England. To all appearance, it is the very custom that has been in existence in this Colony from the time it was first occupied by the Dutch, and yet Mr. Torrens' originality is extolled, and the principle copied by all the other Australian Colonies. "Mr. Dudley Field the well-known American jurist said it was much in advance of any system with which he was acquainted." I do not pretend to be a lawyer, but a well-known American jurist ought to have heard something of Roman-Dutch law.

From chapter fifteen, on roads and railways, I shall only quote the following:—"2,707 miles of road nearly half of which metalled, cost £1,800,000; our railways have been constructed on different guages, the five foot three inch predominating. The Port railway constructed in 1856 cost the enormous sum of £17,500 per mile. Our latest railways have cost from

£4,000 to £5,000."

After the discussions in our House of Assembly and the press, which have been going on for years, it would be a work of supererogation to offer any comments or make comparisons between our railroads and those of Australia, or Sir Julius Vogel's theories as regards those of New Zealand. If we believe Trollope, a good deal of log-rolling took place in those colonies and endangered the future state of their exchequer.

The sixteenth and seventeenth chapters speak of mining prospects, and the internal navigation on the river Murray, and may be passed over.

The eighteenth chapter gives an account of the telegraph from Adelaide Port Darling, connecting the former with Europe. The following will not be thought unworthy of notice, and might almost lead us to believe that Mr. Merriman was serious when he spoke of a line from Cape Town to Egypt; in fact one speaker at a meeting held but very lately in London, seemed to make it clear that the time for the execution of such an apparently wild idea was not very far distant. We read "That it was feared the line (to Port Darwin) might suffer from the wild natives in the interior, who from malice or ignorance might cut the wires; singularly enough, however, there has been no instance of their doing so. They seem to have a wholesome dread of the telegraph. During the process of building the operators gave several of the curious black fellows electric shocks. They learnt to associate the peculiar sensation caused by the shock with the line, and this has prevented their interfering with it. The terror caused by reports of the white fellows' devil, spread like wildfire amongst the timorous savages. They have attacked the operators at the stations and sometimes with fatal effect, but they fight shy of the wires."

We at the Cape know, however, that Sir Harry Smith was unsuccessful with the powder wagon, and it is very doubtful whether the ingenious artifice above narrated would similarly affect our neighbouring black

fellows or Cetywayo's warriors.

Without the telegraphs South Australia could not have disposed of last year's large surplus harvest except at such sacrifice as would have ruined the farmer. With it the wants and prices of all the markets in the world were known to them without delay. Mr. Todd says he was assured by merchants competent to form an opinion that the Telegraph had realized for the Colony at least £150,000 in the advanced prices obtained for wheat.

Chapter nineteen is on exploration.

Chapter twenty on Colonial industries. "Meat preserving was tried by squatters a few years ago. Hind quarters of mutton were worth from 2d. to 2½d.; these prices are quite doubled now. At one time when owing to long continued drought feed was scarce, thousands of sheep were

boiled down for tallow, the meat being turned into manure."

Of other industries besides wool and minerals, the vine is mentioned, but it must be admitted somewhat apologetically as follows: "The taste for pure wine needs to be formed and cultivated in England, and when that is done there will undoubtedly be a great demand for ours." In the same way it would require the English taste to be educated to produce a demand for the sort of wine Mr. Murison spoke of the other day in the Legislative Council, which would not improve by time, but which was

nevertheless the pure juice of the grape.

A good deal is said of the incipient woollen manufactures, tanneries, and the like, whilst as olive oil is actually made and sold in the colony, they are at least in advance of us in that. Large mulberry plantations are being cultivated—and let us not forget that labour in Australia is scarce and expensive, whilst we have thousands of women and children in many of our villages and missionary institutions who during six weeks in the year could add to the exports of the Colony and keep their own pots boiling. If we call to mind the fact, that silk-worm breeding was tried at the Cape more than a century ago, and that the late Messrs. Truter and Borcherds did what they could to recommend this industry in their

younger days, it does seem a great pity that no persevering efforts are made, or the reasons for abandonment clearly made known. The olive, too, was introduced in Van Riebeek's time, and grows well in the Botanic Garden, but we grow nothing in those localities where the olive would thrive, except the pure juice of the grape. Mr. Griffith, our late Attorncy-General, made a sample of very good salad oil; and I am told the cook of Governor Sir H. Barkly pickled some splendid olives obtained from our Botanic Garden.

Chapter twenty-one on Immigration, and chapter twenty-two on the

state of Religion, we may judiciously skip.

Chapter twenty-three, shows that their system of education is very like our own, and that there is not much, if anything, for us to learn, To establish a University Mr. W. W. Hughes, a wealthy copper-miner, gave £20,000, and Mr. Elder, a wealthy merchant, £20,000 more.

Chapter twenty-four gives a summary of the advantages of emigration to Australia and the question of emigration generally, with a hint as to the

hope of future Federation.

The twenty-fifth chapter gives a not very clear description of the Northern territory, and yet too long to quote, with little worth extracting for the sake of comparison. The 2,000 miles of telegraph line was finished in two years, two-thirds of it by contract; but (perhaps prudently) the cost is not mentioned; in fact, the supplementary chapter is very vague. The country, except that near the telegraph line, is quite unexplored.

The flora, fauna, mines, and minerals are contained in the additional Dr. Schomburgk has the management of the Adelaide Botanical Garden, which is said to be the finest but one in Australia. He has written a valuable paper on native and imported grasses, and proposes the cultivation of various vegetable substances, but as his theories do not appear as yet to have been confirmed by practical

experience, we need not allude to them any further.

If I were to give the readers of the Cape Monthly the detailed statistics with which our author concludes his work, I am afraid the Editor would scarcely be pleased, as so much room has already been infringed upon; they are, however, very interesting to those who have the patience to go

through them,

I shall now conclude with the following summary: - " 50,000 men supporting twice their number of women and children, occupy 200,000 square miles of pastoral country, and possess six millions of sheep, own six million acres of land, and grow twelve million bushels of wheat, command an external consumption of nine millions sterling, and raise one million of revenue; such is the material results in the thirty-ninth year of the colonization of South Australia."

F. W. R.

# Our South African Snakes.

### BY EUSTACE PILLANS.

THE interest I take in the above subject, which has been my peculiar study for several years, and the really little knowledge I am persuaded the public generally have of our Colonial snakes, has induced me to introduce this paper to the readers of the Cape Monthly.

Not being favoured with that happy exemption from reptile life, which is said to be the case in Ireland, whose patron saint drove out the offending snakes, but surrounded as we are in South Africa by the reptiles themselves, and often in close proximity to them, it is as well to have a right understanding regarding them; some idea of what snakes are venomous and what are harmless, as also of their habits and modes of offence, as well as some notion of

the degrees of venom and power peculiar to them.

Before, however, I enter into any detailed account of some of the commoner specimens found in South Africa, and upon which I specially mean to dwell, I would remind you that it is not my intention to give any scientific account or appellation of each variety, wishing rather to write of them from my own experience, and not from the authority of others. Those, therefore, who expect to hear of the "Bucephalus Capensis" or "Deudrophis Semivarigata," will be disappointed when they hear of them as the "Boom Slang" and "Grass Snake," feeling sure that, to most colonists, the

native names will be more familiar and equally interesting.

My experience of the reptiles dates from my school-days, and many is the disgrace I remember getting into, when it was discovered that I had again and again come to the dinner or breakfast table, with my coat-pockets stuffed with "lizards," "scaapstickers," or "mollfritters," or had turned an immaculate pillow-case into a receptacle for reptiles of every shade of venom, which it was my delight, then and there, to give a good shaking to, so as to make them fight and then to look in and see the fun. Since then I have made repeated collections and pets of different specimens of the tribe, have spent considerable time in examining and learning their habits, and have had almost every variety of our colonial snakes in my hand, down to the python, as harmless as it is huge, and which three or four natives, in Natal, will often run up to, lay hold of, flay, and cut up (at least the saddle) into strips, which when dried, are used for a curry, tasting not unlike an ordinary fish-curry.

In the classification I have made of our snakes, I have divided them into three classes: (1) those that are deadly poisonous; (2) those that contain poison but are not deadly; and (3) those that are altogether harmless, or contain no poison; and it is on the varieties of some of each class that I mean to dwell, and to make mention only of the more common kinds. But before I proceed to any further enumeration, let me say a few words as to the poison of snakes. Much difficulty is usually felt and much misapprehension really exists as to the means of determining, at first sight, whether a snake is poisonous or not. It has been said by some, you should see whether the tail is stumpy or terminates abruptly from the body, whether the head is flat, whether the scales are raised, and other such-like peculiarities about the person of the snake. There is only one infallible method of determining whether a snake is venomous or not, without approaching or examining it, and that is by noticing its behaviour. A snake's fang or poison tooth, which is the weapon of defence in the poisonous reptile, is exactly the shape of the claw of a cat, having the form of an arc, sheathed in the gums of the snake's mouth. Now the muscles at the back of the neck and partly down the back act on these fangs when they are required to be brought into action, and therefore to be able to strike or bring its fangs into play, the poisonous snake must raise itself, throw its neck backwards, and its head somewhat in the shape of a cock of a gun. Those which are harmless having no need of this proceeding, as they have no fangs, but teeth, dart straight forward in a horizontal position; and this rule is invariable. This forms the easiest method of finding out the nature of the snake you are about to contend with, as, though venomous snakes seldom run away, harmless ones, as the mollfritter, sometimes show fight when intruded upon.

A misapprehension, often heard of, exists among the lower classes, as to the mode of action of the puff-adder in striking, viz., that to do so it must throw itself backwards. This is an entire mistake. True, this snake sometimes uses a sideward motion when striking; and why, I shall now endeavour to explain. This snake, in addition to its being the most deadly of our colonial reptiles, has a peculiar facility in using its fangs, which only one other has, and that is the berg-adder. These fangs, four in number, and each sufficient to cause death, are situated two on either side of the upper jaw of the reptile, and are controlled not only by the muscles of the neck but by a set in the neck also, as the enormous size will show, and this power, joined to the fact that its upper lip or jaw is divided allows of it striking with either of the fangs, which are worked by an independent set of muscles, by means of a sideward motion; but when the snake is enraged thoroughly, it brings all its fangs into play and strikes forward just like the cobra and other venomous kinds of the tribe. think, has given rise to the backward motion spoken of by many, and the lateral motion has only to be further exaggerated when you will have the full idea of the puff-adder striking backwards. I may add, with regard to the bite of this snake, that unless very immediate remedies be taken, the patient's life may always be

despaired of.

I will now say a few words on snake-bites and their treatment. As is well known, the effect of snake-poison is to congeal the blood and stop the circulation; also, acting through the circulation and killing by some occult influence which it exercises on the nervous system;

so to prevent this effect is the problem of the cure.

Violent exertion is at all times necessary and salutary, but in more serious cases other remedies are applied, many of which have been proposed, more tried, but yet no satisfactory cure has been arrived at. The cause is natural; for many people commit a great error when they imagine that because an antidote fails in one case said to have been efficacious in another, the first alleged case must have been unfounded. A remedy may at the same time be successful and unsuccessful. The thing it depends on is the general state of health of the person bitten, and the state the reptile is in when the bite is being effected, the place where bitten, and the promptitude with which the remedy is applied. For instance if a person in good robust health be bitten, remedies will be successful, which in a diseased person may be entirely useless. If a person be bitten on the finger or toe, amputation or ligature will be of use; then again if a person be bitten on an artery on the leg, for instance, the probability is that the remedy will be too late, when in a less vital part it may have been successful. For it must be remembered that the action of the antidote is to neutralize the chemical powers of the poison, and the cure depends upon which gets the upper hand.

Of the remedies proposed and most frequent in use, ammonia is placed first, but in a bite which I received from a ringhals, some years back, and which snake I reckon third in order of venom among the snakes of which I am writing, I doctored the wound successfully with tobacco-pipe oil or nicotine. Other instances of similar cures are known, and as the nicotine compared with the ammonia was in a rough and adulterated state, and when we remember the wonderful poisoning effect it has on the nerves of any poisonous snake, I am of opinion that the remedy of the future will be a strong tincture of this substance distilled or otherwise strengthened. Eau-de-luce is also often used, which is closely allied to ammonia; but in the absence of these remedies, and provided the bite is not in a vital part, strong stimulants, such as brandy, gin, &c., will be of use. I have known instances of snake-bites, where the pulse has fallen so low as to be almost imperceptible, and yet quickened and ultimately restored by repeated large doses of spirits. The cure, then, is the continued circulation of the blood, depending for its means on the health of the person bitten, the vitality of the part bitten, and the promptitude with

which the proposed remedies are applied.

Closely connected with this is the curious case of one snake biting another, supposing both to be venomous. The result is almost always fatal. But here, again, it greatly depends on the state of the snake at biting. A snake cooped up for any length of time loses much of the power of its poison, while on the other hand, it becomes

more amenable to it, and this is due to the want of proper food, which I shall describe further on; also the first bite of a venomous snake is always most to be feared, but a second bite by the same reptile, if delivered shortly after the first, owing to the poison having been partially exhausted by the first effort, is less deadly in its effect. In a case similar to the one I am now supposing I have known a snake hold out for twenty-seven hours after it had been bitten. This is also due to the fact that the snake is a cold-blooded animal, and therefore the poison is not circulated as freely

and rapidly as it would be in a warm-blooded creature.

While dwelling on the subject of snake-bites and their treatment, I will add a few words on the snake-charmers or snake-catchers we often read of in India; but before proceeding, it must be borne in mind that these men really dread the consequences of a bite of a wild and vigorous snake, provided, of course, he be venomous, quite as much as other mortals do, and are well aware that nothing can withdraw the deadly venom from a wound, or save life, when once the poison has mingled with the blood; and, as I briefly stated before, where a venomous snake bites vigorously the poison, which is secreted in a gland in the upper jaw of the reptile and behind the eye, flows through the fangs, is instantly introduced into the tissues pierced by them, thence into the blood, and in an incredibly short time into the whole system; the consequence is that the nervous system of the victim is then paralysed, complete prostration ensues, resulting in the great majority of cases, if not in all, in certain death, the only hope being in the immediate and complete stoppage of the circulation of the blood immediately upon being bitten, between the wounded part and the rest of the body, or by incision or amputation; and as the poison enters into the system with great rapidity, such means to be of any use should be applied without a moment's delay. Ligature to be of any use should be employed without any regard to the pain which it causes, for unless the cord be so tightened as to stop circulation, it will be ineffectual; and at the same time an endeavour must be made to remove the poison from the punctures or wounds made by the fangs. This may be done by cupping or suction, but sucking with the mouth is dangerous to the operator, because the poison may enter into the system through the lips or any part of the mouth where the skin is anywhere broken. Gunpowder is burnt in the wound by some, and other such like remedies applied; but I am of opinion that at present there is almost no hope of saving life if the bite has been inflicted by one of the venomous tribe while in full vigour, and in a vital part. There is at present no true antidote known to the poison of the deadly snakes, - none known which is so subtle as to follow, overtake, and neutralize the venom in the blood, or that possesses the power of counteracting and neutralizing the deadly influence it exerts on the vital forces. Such a substance is still to be found, and it is said that our present experience of the action of drugs does not lead to hopeful anticipation that we shall find one.

VOL. XV.

Nevertheless measures must always be taken in the case of a bite, both vigorously and promptly, and we may look for a good proportion of recoveries in patients who have been imperfectly bitten, or by a snake whose poison was weak at the time of effecting the bite, or

by some snake which was not of a very deadly nature.

But to revert to the snake-charmers and their method of dealing with these creatures. The secret of all the tricks they practise upon the snakes exhibited by them before the public is that they extract the fangs from the venomous snake before they dare to play with him, or squeeze or distil the poison through the fangs, upon which he becomes perfectly harmless and as a toy in their hands. I have heard it said that these men will allow a wild and vigorous snake to bite them, and that they will not suffer from the effects; but I should like to see it. I know they have sometimes their tame snakes hidden about by accomplices, and these snakes they will seek for and catch, thereby deceiving many; and as to the gift they are supposed to possess of charming the serpent by means of music, all I can say is that I myself have never known any snake in any way affected in the least by the strains of music, although I have repeatedly endeavoured to induce them to exhibit their musical taste which I have so often heard of, but they have invariably turned a deaf ear to my attempt. Perhaps having no ear for music myself, it was owing to my ignorance as a performer.

Regarding the classification of the common varieties of snakes found in South Africa, and in treating those that are deadly-poisonous, I will place the puff-adder among the first. There are two varieties of this snake distinguished by their colour, the one being of a yellowish and the other of a slate-colour. Both are generally found on hilly or mountainous country, and often near water, as they seem particularly fond of feeding on frogs. Their appearance is repulsive, and they have none of that beauty of symmetry which is the charm of the less poisonous snake. They make up for their beauty, however, by their poison, which is most deadly. There body is short and thick, that of the yellow seldom exceeding four feet, and that of the slate-coloured rarely three. Their tail terminates abruptly and from a thick body; the head large, flat, and heart-shaped. This is the most inactive of all snakes, but its poison which is of a

thicker substance, is most virulent.

Next on the list I will place the black mamba, a snake belonging to Natal and the country to the East. It is of a dark-brown or nearly black colour, and attains sometimes eleven feet in length. I have myself seen them seven feet long. Its ordinary length, however, is from four to five feet; it is far more active than most snakes, and is to be avoided on account of its almost always acting on the offensive. It ranks next in venom to the puff-adder, and is considered by the natives to be so dangerous as to be called by them the seven-pace-snake, signifying that if a person be bitten by one of them he does not live to walk more than seven paces afterwards. If it be remem-

bered also that this snake never hisses, and therefore gives no notice of its presence, it will be seen that it is much to be dreaded. It is very plentiful in the cane-brakes in Natal, where every overseer superintending the gangs of native labourers, usually carries a bottle of ammonia in his pocket to provide for the person who may be bitten. It often happens, however, that the native on being bitten prefers the aid of his own native doctor, who may be seen violently beating his "tom-toms" and rattling his "bones" over his patient, who is meanwhile writhing with pain, but presently takes a form of hydrophobia and convulsive fits, and in the end dies a death awful to behold on account of his fearful suffering. If he submit himself to the European, the part affected is quickly bound up as tightly as possible, a cross cut about a quarter of an inch deep over the wound to cause the blood to flow freely; the wound is then squeezed open, and about ten drops of liquid ammonia poured into it, ten drops diluted in water being given internally, and any stimulants that may be handy. The man is then set loose, and running, as if in very deed his life depended on it. If he be of a sound constitution, and the remedy applied in time, he invariably recovers; but often when a small quantity of the poison becomes mixed with his blood it causes very great pain, and sometimes he may unfasten the bandage through fright or bewilderment. recollect a case in which this happened. The man declared he could not stand the pain any longer, so loosened the bandage, and after

much suffering, died.

The "ringhals" is also one of our deadly poisonous snakes, and ranks next in venom to the black mamba. Its colour is of a greyish brown, variegated with a number of transverse bands, varying in tint from yellow ochre to yellowish white; under its neck are crossed two or three bands of yellow and white, variegated with whitish spots, which has given rise to its name ringhals or ring-necked. This is the first species of the "hooded snakes" that I have mentioned, named from the power they have of distending their necks laterally, thus giving them the appearance of a hood. I may mention that all the hooded snakes are poisonous. The sunken eyes of this reptile give it a peculiarly malignant and savage appearance. The natives as well as the colonists rightly reckon it as the most courageous of all South African snakes, for it will when intruded on always show fight, and often persue its disturber. The power of its poison is highly to be dreaded. When in confinement and irritated it evinces great ferocity, openes its mouth so as to seize any object that may approach within its reach, and while open the poisonous fluid may be seen distilling in drops from its fangs which are then raised to their proper striking position. It is on such occasions also that it often ejects the fluid, by violent respiration, to a distance sometimes of several yards from it; this is called "spoeg," and which I shall more fully speak of when I come to the regular "spoeg-slang." I. have cause to remember this snake, as a bite I received from one some years back nearly cost me my life. It happened in this way:

During the time I was collecting living specimens of the tribe I happened to come across one of these creatures which was only half grown, being about eighteen inches long. I captured it, and had broken off one of its fangs, and before I had time to remove the second one it managed to pierce it into my fore-finger just above the nail. I then put by the snake, fastened the finger tightly with my bootstring, and also fastened another above the wrist. I made a cut across the wound from which the blood was already flowing, and squeezing the finger to allow the blood to flow freely, sucked the wound, and put a quantity of pipe-oil into it. The pain, I need not say, was intense, and seemed to travel up my arm as if my blood was red hot. The best way I can describe the pain is by comparing it to a beesting, intensified by the degree of the strength of the poison of the snake. My arm very soon became almost black, the pain meanwhile travelling down my legs to my heels, when it seemed to sting me, and my feet felt as if they were asleep. It then ascended upwards with a throbing pain towards my head. I soon became quite drowsy and remained in this mood for about two hours, when I suddenly recovered, but found my limbs still stiff, which feeling soon left me. This instance will show the power of the poison of the ringhals, for although the snake I am speaking of was not more than half grown, and had only made use of one of its fangs, if not treated in time the bite would certainly have caused my death. Since then I was bitten by a "night-adder," but successfully treated it with liquid ammonia, which I happened to have by me at the time.

The "berg-adder," a species of the puff-adder, but smaller, is the next snake of which I shall make mention. Its average length is about ten inches. It varies in colour, according to the localities where found. Those found on hills are termed "horned adders," from a peculiar protrusion above the eyes something like that of a snail. Those found higher up, or on mountains, are the "berg-adder" proper, as their name indicates. These varieties, although on first appearance they may seem different, are really alike, that is, of the same genus. They are especially dangerous to mountain climbers. I can call to mind more than one narrow escape that both friends of mine and I myself have had while ascending the "Devil's Peak," which place abounds with these reptiles. It is needless for me to describe the berg-adder more fully than to say it is just like the puff-adder,

only smaller and much more active.

The next snake on the list is the "cobra," which in India is considered as one of the deadliest of snakes, although I have classed him among the fourth of the venomous tribe. There are three varieties of this snake, distinguished by their colour, viz., the slate-coloured, the brown, and the yellow. They are the largest of our hooded tribe, are dangerous, and to be avoided on account of the rapidity with which they travel, the yellow cobra being especially quick in its movements, and also a good tree-climber, where it resorts in search of birds' nests, from which it seizes the young. When ex-

cited or confronting an enemy, they assume a remarkably graceful appearance and posture of defence, by raising the fore part of their bodies from the ground, at the same time drawing together into a coil the remaining half of the body and tail, till it forms as it were a spiral spring, which, aided by the elasticity and muscular power of their frame, enables them, as soon as they deem their opponent to be within range of their stroke, to launch themselves forward with the rapidity of a flash of lightning, and in an instant the bite is given. The cobra, unlike other venomous snakes, is easily tamed after its fangs are extracted, and may even be taught to recognize its keeper; but in its wild state it is particularly bold and savage.

I now come to the extraordinary species of snake known as the "spoeg-slang," of a straw or pale-cream colour, with three dark-brown transverse bands under the neck. It derives its name from the power it has of darting its poison to a distance, distilling it from its fangs, as in the case of the "ringhals," when in a state of irritation. This snake has been known to emit its poison to a distance of seven yards, and when aided by the wind even further; and frequently with such precision that the eye of the individual, which is close enough, almost always receives the ejection. The poison causes great irritation, and often terminates in the loss of the eyesight. The bite of this snake also proves fatal. It is remarkably bold and savage when intruded on or attacked, even going so far as to act on the offensive. In these moments it raises its hood similar to those which I have described. Its length is about three feet. It is only rarely found, and not often heard of.

The "night-adder" is also one of our deadly poisonous snakes, and takes its name from its prowling about in search of food only at night. It is of a brownish-yellow colour, speckled with small white spots, and has a black head, which it flattens out when irritated or surprised; its usual length is about eighteen inches. This snake always warns a passer-by of its presence, by a loud puffing and hissing noise; it is very bold, and always stands to fight in pre-

ference to making its escape.

The "garter snake," one of the prettiest of our colonial snakes, and deserves a place here, if its colour were its only plea, being of a bright red, mixed with yellow and white stripes, and often assuming other brilliant ribbon-like hues, according to the locality where found. The usual colour, however, is chocolate-red, and darkish green. This snake is very timid, and seldom seen, except in its hiding-places, which are often deserted old ant-heaps; its length is about two feet, and it is altogether of a very beautiful appearance.

Of our snakes which are poisonous but not deadly, I shall make mention of some, and among them the "boom-slang," which I shall place first. There are three varieties of this species, the yellow, the brown, and the green. Their usual length is from four to six feet; the peculiar arrangement of their scales facilitates their climbing trees, from which they take their name. Their fangs are small but sharp,

and enclosed in a soft pulpy sheath, and are seldom used, they being provided with a set of sharp teeth. Whatever may be said in ridicule of fascination, these snakes have, at least, the power of preventing birds from leaving their presence, until some one comes up and disturbs them, and often have they been discovered through the ceaseless chattering of the feathered tribe around them.

The "green mamba," also a tree snake, and very much resembling the boom-slang in shape but not in colour, being of a bright green, is found only in the Colony of Natal and the country to the East. Its habits are the same as the boom slang, but it is less poisonous.

The grass snakes, including the "schaap-sticker," are found everywhere throughout the colony, and include no less than eleven varieties, varying in colour according to the locality, some being very beautifully marked. They move with great rapidity, and feed on small birds and vermin of different kinds.

In making mention of some of our harmless snakes, I will place the python first, on account of its great size, which varies from twenty feet and sometimes even upwards. They feed on quadrupeds which they suffocate, then crush up almost into a pulp, and afterwards suck in. This last operation sometimes takes them several days as they have first to cover the animal, if it be a large one, with saliva, which they eject on the body, thus giving it a soft and slimy feel, when they gradually suck it in, and then lie torpid for weeks; and this is the time they are generally captured. The two peculiarities about them are their great length and their duck-shaped mouths. The bones of their head are also more soft and muscular, so as to allow of expansion in swallowing their victims. This snake is largely eaten by the natives, who dry the saddles, and afterwards

turn them into a curry.

The "mole" and "mouse-snakes" are next on the list, and comprise many varieties, scarcely any two specimens of which are marked alike. The species are perfectly harmless, but as I have before mentioned, often very courageous on being attacked. The mole-snake attains sometimes to a very great length. One of these I found on Robben Island which had swallowed three rabbits, and was eleven feet long. The power of a full-grown specimen is immense. I once had my arm completely benumbed while holding one of them in my hand by its head. having satisfied itself that its body was properly coiled round my arm, threw its muscles into a state of violent contraction, which produced a pressure almost insupportable, the parts below the place compressed then became benumbed, and my fingers became powerless to retain the animal. As soon as the snake felt this it recoiled and threw itself to the ground. This species, like the rest of the harmless, having small teeth, depends on destroying its prey by suffocation. It is a pity that these snakes are so ruthlessly destroyed by the ignorant, they being one of the chief suppressors of the more destructive mole, which they hunt like ferrets.

The only difference between the mole and mouse snake is the colour—the former generally being of a dark-brown or even black colour, and the latter of a spotted brown—also that which its name indicates, viz., it hunts above board or about the bushes in mouse nests.

All water-snakes are harmless, and feed on "dookootjes" or frogs. It is a mistake to suppose that they are the only snakes that can swim, all snakes do so, propelling themselves forward by their ordinary zig-zag motion. Water-snakes are generally of a dark-brown colour with light-pink coloured stomachs.

A word in conclusion about snakes generally.

However repulsive in appearance, and under the curse, they constitute one of the links in the great chain of creation, and were intended by their Maker for some good and wise purpose, far more useful than generally supposed, in the suppression of vermin, and keeping within bounds the destructive rat and mouse and such like small deer, and, I believe, answering many purposes, and fulfilling many ends of which we have but small idea. True the sentence in Scripture pronounced against the serpent, "On thy belly shalt thou go, and dust shall thou eat all the days of thy life," dooms them to an abject position among living things, yet the fossil remains of Ophidians shows them always to have borne their present form;—as Hugh Miller says, "Nor did the Hand that makes no slip in its working, form the crooked serpent, footless, groveling, and venom bearing, the authorized type of a fallen and degraded creature, until after the introduction of the mammals."

Doubtless the doom of dust-eating is not only metaphorical, as when a vanquished foe is said to bite the dust, but literal in a sense, for it may be the medium for supplying the serpent with much animalculous life, which the peculiar formation of its tongue enables it to select from what we call the dust of the earth; this member in snakes is not fixed to the throat in the same way as in other animals but moves up and down in a close-fitting tube situated at the back of its lower lip. Each time it picks up a morsel with its tongue the particle is deposited by retraction on the rim of the orifice, and the process repeated until the due mouthful is accumulated. observed that on giving my tame snakes a fresh supply of sand in their boxes, they would crawl round as if inspecting it, all the while thrusting their tongues into the sand, and on taking one up found its mouth filled with small particles of apparently wood-dust, and when after I allowed him a little longer feed I opened him and found he had taken a meal of what seemed to me dust; this showed me that the tongue of the snake was not only used as a feeler but as a feeder also.

This is but a memo, of personal observation on a subject, which is of much more extensive range than lies within the scope of my time and leisure, but even my small experience shows that the doomed snake is not always the scorned reptile many of us represent him to be, and that while many kinds are to be shunned as dangerous

and driven from our dwellings and neighbourhood, there are others repulsive, it is true, in the sight of many persons, yet not only harmless but useful in our gardens and granneries, and which might be introduced among us as the most effective opponents of those domestic pests—the rat and the mouse. Why the chain of life should contain these venomous reptiles we cannot tell, but it is evident these links are necessary otherwise they would not be, and we know that He has done all things well, and has pronounced His Creation to be good.

(To be continued.)

## Mr. B. M. Stanley's Explorations.

Almost the last great problem of Central African Geography is solved. The true source and course of the River Congo has been discovered and followed, down to its embouchure in about 6° South latitude, where it measures nearly six miles in breadth, and is as much as 1,312 feet deep, while such is the force and volume of its current that at a distance of sixty miles out at sea its waters are not entirely blended with the ocean, and at fifteen miles from the coast the water is quite fresh. This prodigious stream, which takes rank immediately after the Nile, is now ascertained to be identical with the Lualaba River of Livingstone, and its hydrographical basin embraces the series of lakes on the western slope of the central plateau, from Tanganyika down to Bangweolo, Moero, and Kamolondo,—a region which the great missionary explorer described as one of excessive humidity, and compared to a vast tarn, or sponge constantly charged with water.

The successful achievement of this important geographical result is due to the energy and entrepidity of Mr. H. M. Stanley, who is at present, by the accident of travel, a welcome and honoured

visitor to Cape Town.

Singularly enough, it was from this point that the work of exploration which stimulated the ardour of such men as Burton, Speke, Baker, Cameron, and Stanley first proceeded. It is only twenty years ago since Dr. Livingstone was welcomed by us, after his journey from sea to sea across the south intertropical part of the Continent. Burton and Speke then pushed into the Interior from the East Coast, reaching the shore of Lake Tanganyika. After crossing the Lake, Speke alone turned his steps northward, and discovered the vast reservoir which he named the Victoria Nyanza. Convinced that he had found the true source of the Nile, Speke soon set out again, accompanied by Capt. Grant, and in 1861 traced the outlet from the northern shore of the lake. At Gondo Koro, on their way north, they met Samuel Baker, who, with his heroic wife,

had undertaken the same exploration in a contrary direction, and pursuing his course southwards found the great basin, to which he gave the name of Albert Nyanza. These discoveries soon afterwards led to the conception of the Viceroy of Egypt's scheme of extending his authority as far as the Lakes, and of putting down the slave trade, in which Sir Samuel Baker and Colonel Gordon co-operated.

In 1866, again, Livingstone undertook his last journey; starting from the Rovuma, and leaving Lake Nyassa (now Livingstonia) to the Southward, he penetrated the unknown country extending to the West. There he fell in with the Bangweolo, the Moreo, and Kamolondo, which he found united by a great river variously known as the Chambezi, Luapolo, or Lualaba. The northern limit of his explorations was Nyangwe, where the river appeared to make a N.N.E. sweep, that led him to suppose it was not the Congo, but an upper source of the Nile. But the exposure he had endured in the country traversed severely told upon him, and he had to return to Ujiji, on Lake Tanganyika, exhausted and ill. At this place in 1871 he was met by Stanley, who had gone out to seek him.

"I was in abject misery at Ujiji," writes Livingstone, in one of his letters to Sir Thos. Maclear; "Then Stanley came upon the scene,—acted the part of a good Samaritan, and relieved my sore necessities. He cooked dainty dishes with his own hands to stimulate my appetite, placed all his goods at my disposal, and wanted me to go home and recruit, and come back. A dutiful son could

not do more than he generously did. I bless him."

Livingstone, comforted and strengthened by Stanley's timely succour, declined to return home, while his work was unfinished. He retraced his steps, to take up the thread of exploration, determined to see where his great river Laulaba bent its way; but while completing his investigations near the southern shore of Lake Bangweolo, the fever contracted in the marshes again laid hold of him, never to quit him more. On the 1st of May, 1873, his faithful negro followers found him dead in his hut. "He was kneeling by the side of his bed, his body stretched forward, his head buried in his hands upon the pillow." That scene at *Ilala*, which Lord Houghton has touchingly described, is familiar to us all:—

The swarthy followers stood aloof, Unled - unfathered; He lay beneath the grassy roof, Fresh-gathered.

He bade them, as they passed the liut, To give no warning Of their still faithful presence, but "Good morning!"

In the same year that the great explorer passed away, two expeditions started from England to seek traces of him. One under

the command of Lieut. Grandy, R.N., advanced from the direction of the mouth of the Congo, but was unable to proceed, from the difficulties interposed by the natives on his route; and the gallant leader has since, we regret to say, met his death while travelling near the Zambezi Falls. The other expedition was placed under Commander Cameron, who was fortunately guided by the counsels of Sir Bartle Frere, and started from Zanzibar. When on his journey, halfway to Tanganyika, he met the escort of Livingstone's attendants, bringing the remains of their master down to the coast. After taking steps for insuring the safe transport of these remains, he resolutely determined alone to push on and pursue the geographical investigations which had been dropped. He surveyed Tanganyika, and in the course of his operations found an outlet, the Lukuga, flowing westward to the Lualaba. This he determined to follow from Nyangwe (Livingstone's highest point); but on his route he met hostile natives, who would not allow him to go further, and he was obliged to turn in another direction southward, crossing the affluents on the left of the Congo, and came out on the Atlantic, in November, 1875, in the neighbourhood of the Portuguese pos-

session of Benguela.

Meanwhile, the remarkable aptitude for African travel which Mr. Stanley's successful "Search for Livingstone" had demonstrated, led to the organization of an Anglo-American expedition, under his entire charge. Its special object was to unite the fragmentary discoveries of Speke into one complete whole, to finish Baker's and Burton's exploration, and finally to take up the work left incomplete by the lamented death of Doctor Livingstone. The cost of the enterprise was entirely defrayed by the unparalleled liberality of two newspapers -- the London Daily Telegraph and the New York Herald. Mr. Stanley started from the East Coast in November, 1874, with 347 followers, marching by a new route to the Lake Victoria Nyanza, and travelling a distance of 720 miles in 103 days. He carried with him a portable boat, in which he succeeded in making the circumnavigation of the Lake, covering about 1,000 miles in circuit. After thoroughly surveying that splendid inland sea, he made his way across to Baker's Albert Nyanza, where he marked previously unknown shores, and an extensive gulf which he named the "Beatrice." He also found a new feeder of the Nyanza, naming it the "Alexandria Nile," as an explorer's tribute to the good and exalted Princess of Wales. Being satisfied that these were the main sources of the Nile, he then turned to finish Livingstone's work, visiting Ujiji and circumnavigating Tanganyika. He discovered that the outlet which Cameron named the Lukuga was not the actual but the destined outlet of the lake into the valley of the Lualaba. He also learned there of Cameron's departure westward, and of his having proceeded from Nyangwe with some Portuguese traders in a direction which would bring him out at Loando, and of necessity leave the question of the identity of the Lualaba with the Nile or the Congo much where Livingstone had left it-still unsettled.

Mr. Stanley at once realised the situation. From Ujiji, in August of last year, he wrote to the Daily Telegraph: - "I have two brilliant fields before me, and the prospect of entering either one of them causes me to thrill with delight, though merely anticipating what lies ahead. Shall I search for the head of the Alexandra Nile; or shall I continue along the right bank of the Lualaba?' such is the alternative which agitates the silent hours of night with me. Shall I, after arriving at Nyangwe, strike north-easterly, and take this coy and maiden Nilefountain by surprise where she first issues from her oozy bed in the angle of some dewy valley, and trace her thence through all her sportive career, amid flower-decked lakelets or the breadths of eververnal papyrus, or where she rushes with fresh-born vigour and youthful ardour by fragrant meads and forest-clad slopes to the three blue Nyaneas, to meet her kindred gathered from all points of the compass as tribute-bearers to King Nilus the Lord of Floods? Or shall I worship at the shrine of the majestic Lualaba; view with awe and reverence his broad glassy bosom; watch him unfold his strength, and launch himself against rocks with angry roar until the woods and valleys resound with the name of this terrible monarch; witness him receiving his homage from other potentates of less ronown, and follow his waves through the dark unknown land where, he finally discharges his flood to the ocean? Both courses are equally enticing, both present splendid openings for geographical research; but which I shall adopt will be best known after I reach Nyangwe."

At Nyangwe his course was decided—to travel down the Lualaba. From all accounts he had heard, the native tribes he would have to encounter in this journey were very terrible; they had already destroyed two Arab expeditions endeavouring to penetrate into the Interior. He thought, however, he was bound to prosecute the work of exploration before him. He asked himself the question, "Is this Continent to be a mystery for ever, and ought not we to push through and benefit these people, even in spite of themselves? No benefit will ever accrue to them from civilization until the mystery is solved." The response was such as might be expected from the daring and undaunted traveller. He with his followers at once resolved to face all the difficulties before them—hordes of savages, famine, sickness, and last, but not least, the equally dangerous task of getting past the cataracts of the Congo, for such the prodigious river proved to be. A bare outline of his perilous adventures are

thus given in his own words to the Argus newspaper: -

"We left Nyangwe on the 5th November, 1876, with an escort of 140 Arabs. After travelling four weeks together overland, along the banks of the Lualaba, the Arabs determined they would not go any further, and returned, leaving us in the centre of the cannibal lands. We set to work and built cances, hollowing out trees for the purpose. We had to cut our way through many miles of dense forest, and very often drag the cances and exploring boat overland. In going through these cannibal lands we had to fight day and night. It was the most desperate work against perfect savagery and barbarism that anybody could conceive. The natives did all they could to harass and oppose us, killing

wounding our people with poisoned spears and arrows. Very often they have run after us and exclaimed, "We shall have plenty of meat to day," and some of my men discovered portions of their comrades who had been eaten. I cannot say from personal observation that I saw traces of this kind of thing, but I have seen rows and rows of skulls planted in the ground. Sometimes these hordes of savages numbered 5,000 or 6,000 at a time, and although on the water we had a certain advantage, it was most desperate work fighting our way through. Several of my people were wounded with poisoned spears and arrows. Finding that it would be useless to continue this route, as nothing but incessant bloodshed could ensue, I altered my course and set out for the main land on the left bank, following the course of the river among the islands day by day. Every now and then we got peeps of the mainland, and after a while we came to the tribes who used guns. They were very old fashioned weapons, and the natives did not seem to spare powder or ammunition. I found that they called the river Ikutu Ya Congo. From this point the natives did not seem to be so savage in their behaviour, but more amenable to reason. There was one terrible tribe, however, who came out against us, with between fifty and sixty large canoes, and all the men had guns. We had twelve hours' most deparate fighing, and I lost several of my men, and suffered a good deal. We managed, however, to capture some of their canoes, but the attack lasted for a distance of twelve miles, which made the thirty-second battle we had fought. After this we came to a different people-altogethermen who were amenable to reason and inclined to be friendly; and we had not much difficulty till we came to the cataracts. In the lower series there are no fewer than sixty-two cataracts, -not cataracts in the ordinary acceptance of the word, but a sheer fall of water, sometimes as much as twenty-five feet, with the rapids going at a furious rate. It was at the fortieth of these cataracts that I lost my last white assistant, poor young Francis Pocock. He was attacked with ulcers in his feet, and would not wait for the hammock bearers. He got into a canoe and urged the boat-boys to be more desperate than usual, the result being that he was swept over the Massassa Falls and engulphed in the eddying waters. The coxswain of the boat tried very hard to save him, but was unable to do so. This coxswain was a splendid swimmer, a brave soldier, a good boatman, and, in fact, one of the best servants I had -a perfect jewel. He had also great influence over the boat's crew. After this we passed fifteen other falls, until at last we came to the place which Captain Tuckey in 1816 turned away from; and then we knew that the Congo was known from its source to its mouth. On the 9th of August this year we arrived at Boma, where we met white people. We met also a steamer belonging to a Liverpool line, and they treated us most generously, giving my people a passage right down to Kahenda. We stopped there for a week, and a man-of-war took us down to St. Paul de Loanda, where it was a series of fétes day after day, and we were shown every possible attention by the Portuguese Governor. After this H.M S. Industry was placed at my disposal to take myself and party to the Cape."

## South African Botany.—3 Query and a Reply.

A BORDER CORRESPONDENT writes:—Willingly would I help Professor MacOwan to find the fungi he is looking for, as I did the "soft rush,"—finding what I thought was Juneus effusus, I sent a specimen to my nearest botanical friend, who replied, he had himself sent the Professor a similar one, and the matter dropped.

But there are difficulties in the way. Your pages being open to

workers and observers, may I crave a little space?

Celui qui sait, et celui qui ne sait pas, according to Alexandre Dumas fils, include us all. In botanical matters I belong to the latter category, but to prove to myself my ardent desire to change sides I fenced myself round with a few books; the result is melaneholy,—the deeper I dive into them the nearer I am to the surface. A book whose exterior is familiar to me from childhood, "Loudon's Enelyclopædia of Plants," was one of the first I obtained; edition 1872, a most excellent book. I have also Dr, Harvey's Genera of South African Plants, and his and Sonder's Flora

Capensis. The great difficulty I experience in ascertaining the name of any, to me, unknown plant I find, and from that, as an index to the books I possess, learn what is known about it, arises from the classification of plants being of such a vague nature. When I find a flower with pistils and stamens, it is tolerably easy to identify it in Loudon according to the Linnæan system of classes, orders, genera, and species; but plants are not in flower all the year round, and when not in flower, one is forced to consult the natural systems. That adopted by Dr. Harvey has three classes, each elass is divided into sub-elasses, these into cohorts, cohorts into orders, orders into tribes, tribes into genera, genera into species. Dr. Harvey has 146 orders to Equisetaceae, while Loudon divides all plants to this point into 181 orders. I have also John Smith's Domestie Botany, where Dr. Lindley's elassification is followed; this consists of 303 orders grouped into fifty-six alliances of six classes. Now whichever of these systems one endeavours to make use of, the result is equally disheartening.

Alliances are divided into families. If a layman see a nettle growing under a Banyan tree it is difficult for him to imagine he has before him representatives of two families of an alliance, the title of which is equally

startling: "The Bread-fruit, Mulberry, and Nettle Allianee."

The difficulty of identifying plants by endeavouring to find their "order" in Harvey, leads one to the belief that no fixed principle has guided the arrangement. I open the book at random, page 47, order 32,—"Flowers perfect, or polygamous, ealyx 3-5 fid or parted, imbricate or valvate. Trees or shrubs, balsamiferous or oily. Leaves 3 foliate or pinnate, rarely opposite, leaflets very rarely pellueid dotted. Flowers racemose or panicled." In describing seven features of the order, the word or occurs seven times, rarely once, and once very rarely. In his description of the Genera they appear to be equally complacent, for they are generally said to be one thing or something else.

Are not botanists themselves to thank, in a great measure, for the confusion of description? I referred to Loudon for information about the plants named in Professor McOwan's paper in the August number of

the Cape Monthly Magazine, with the following result :-

Kleinia, three species only mentioned, all from America. Leonoris Leonurus, described.

Hoodia,	not mentioned
Chamira,	do.
Palmstruckia,	do.
Eriosphæra Oeulus-Cati	do.
Rosenia glandulosa,	do.
Broomeia congregata,	do.
Podaxon eareinomatis,	do.
Agaricus eæsareus,	do.

This last genus is divided into thirty-five sub-genera and 307 species, but cæsareus is not among the number. A restitans Schæff appears from a foot-note to be the poisoned mushroom, but it is also called A. xerampelinus "eatable, but its taste not at all agreeable. It is the A cæsareus of Schæffer." All the above genera are noticed by Harvey with the exception of the fungi to which class his book does not extend. There is little doubt, although these plants are not to be found in Loudon's Encyclopædia under the names given, they are there under some other name, but like the hired horse in the captain's bill, the ship owner could not see him. Happily for beginners it is not so bad with plants generally, as it appears to be with fruit. A member of the American Pomological Society says: "I find that twenty-nine varieties of apples have as many as 370 names, averaging thirteen to each." The Garden, vol. ix., page 575.

There are but few parts of a plant, and each part may have certain varied conditions; it is a simple arithmetical calculation to ascertain how many changes may be rung on these parts and variations. Loudon gives 2,500 genera. Cannot some botanist invent a kind of classification enabling any one who holds a plant in his hand to read the first two or three principal points, and from what he then knows, find out the name and all about the plant he does not know, but wishes to learn, as in a Dictionary having the first three letters and context, or a mutilated word, such as ass—it would not be difficult to determine whether assiduous or assa fœtida were the word required. While such a useful addition to botanical literature is being prepared, would some kind soul be good enough to help an aspiring amateur by recommending some work explaining clearly the principles of classification; also the titles of any books relating especially to South African plants?

In looking over the list of books in London concerning the botany of the Cape, I was surprised to find only two works in Latin, one by Bergius published at Stockholm in 1767, and the other Burmann's, still earlier, published at Amsterdam, and one in English, also of the last century: William Patterson's narrative of four journeys into the country of the Hottentots, 4to, London, 1789. I imagine this work is not well known, as it is not included in the list of books relating to South Africa in George M. Theal's History of South Africa, 1876. Burmann is described as a "Dutch editor of other people's works." Harvey, Sonder,

and Pappe's names are conspicuous by their absence.

We have referred the above queries of our Border correspondent to a most competent authority in botanical matters, who contributes the

following reply :-

Your correspondent's difficulties, as he himself states, arise from two causes; the imperfection of botanical science, and his own insufficient acquaintance with that science. Obviously, the first step is to remedy the latter defect. He will then better understand in what respect the science is imperfect, and why it must necessarily be so, and he may do service in helping its progress onward. At present, I may be pardoned for observing, he lays undue stress upon the first of these difficulties, as he will perceive when he has to any moderate extent overcome the latter, which is quite within his power.

So far from the "classification of plants being of such a vague nature,"

your correspondent will then find that it approaches much more nearly to such exactness as the manifold variety of Nature will permit, than he at present supposes; that it is generally regarded as superior in this respect to any other of the natural history sciences; and has even been recommended for study by high authorities, chiefly for the excellence of its systematic arrangement. But he will also learn that it is as unreasonable to expect to find out the name, or, in other words, the character and affinities, of a plant, without flowers or fruit, as it would be to ask a chemist to describe some unknown compound substance without subjecting it to analysis. The end of botany is not, indeed, to "name" plants, but to understand their structure, functions, habits, relation to each other, and distribution over the globe; and for all practical purposes it is safe to say that to attempt to do this, in regard to flowering plants when

they are without flower or fruit, is a mere waste of time.

It might be very agreeable to indolent or ignorant persons to be able to discover the name of a plant by simply looking at a dictionary; it might be better still if every plant bore its name and history in printed characters. But this is impossible. Nature's variety is so great that not merely can no two individuals, of what we call species, be found exactly alike, but no one can gather from the same oak-tree two leaves which shall be precisely the same in respect of colour and form. Hence, the infinite charm of Nature in herb, and flower, and fruit, and tree, and hence the difficulty of maintaining a rigid division which shall be invariably correct between species, genera, and orders. A similar difficulty meets us in allied sciences. "When Zoology," says M. Milne-Edwards, "is only studied in systematic works, it is often supposed that each class, each family, and each genus, present to us boundaries precisely defined, and that there can be no uncertainty as to the place to be assigned, in a natural classification, to every animal the organization of which is sufficiently known. But when we study this science from Nature herself, we are soon convinced of the contrary, and we sometimes see the transition from one plan of structure to an entirely different scheme of organization take place by degrees so completely shaded one into the other, that it becomes very difficult to trace the line of demarcation between the groups thus connected."

Your correspondent asks for the names of books explaining clearly the principles of classification. Loudon was a gardener rather than a botanist. Lindley was a truly scientific man, and his "School Botany," Bradbury & Evans, 1862, or Professor Oliver's "Lessons in Elementary Botany," Macmillan, 1869, are both excellent text books. If your correspondent will go steadily through either of these, until he can, upon models there given, write out correctly a description of the first dozen of Cape plants he may meet with, I will undertake to say that he will have little difficulty in giving to each its right generic name from "Harvey's Genera," Second Edition; and in most cases the specific name, as far as the first three volumes of the Flora Capensis go. Your correspondent says he has both these works, and it is useless for him to ask for more until he has learned how to make use of them. There is no royal road to a knowledge of Botany, any more than to any other science; and the difficulties your correspondent suggests are only those

that meet us at the outset of all scientific study.

### IN RE PODAXON, THE CANCER-FUNGUS.

Judge De Villiers, of Bloemfontein, referring to Mr. MacOwan's enquiry for *Podaxon*, writes: "Travelling through the northern districts of the Free State towards the end of February, I noticed that almost every ant-hill in some parts was ornamented with a dried-up mushroom, in shape exactly like that of a partly opened old alpaca umbrella. Possibly

this is what he is looking for."

We have communicated with Mr. MaeOwan, and he says: "Habet! The Judge has undoubtedly got Podaxon, and my sineere thanks. The little figure given in Roumèguere, a copy of Berkeley's, is exactly hit off by the simile of the old umbrella, though there is no evidence of 'alpaca.' Please request some intelligent man in the Free State to prepare a specimen by cutting a thin wafer-like section right down the middle and carefully drying it with very slight pressure and hourly changes of paper. The thicker masses rejected right and left of the section are to be dried separately. Section and fungus-halves should then be given to me: the proverbial daughters of the leech are nothing to be compared to a botanist for perpetually erving 'Give, give!'"

## Meteonology.

(FROM RETURNS FURNISHED BY THE COLONIAL METEOROLOGICAL COMMISSION).

1877. Month.	Barometer,	Mean Temp.	Mean Max.	Mean Min.	Max. of Month.	On what days.		Min. of Month.	On what days.		Rain-fall.	Number of days on which rain fell.	Mean Humidity, complete Satura- tion equals 100,
ROYAL OBSERVATORY.													
i May June July	inches. 29°994 29°983 30°180 30°128	62°3 55°9 54°9 54°4	74°2 63°4 64°6 62°8	54°4 50°6 46°7 46°5	88.7 75.3 77.3 75.3	18th 2nd 10th 9th	::	37.0 36.6 36.0 36.9	24th 29th 24th 28th		3°571 13°461 2°733 1°230	9 19 8 6	78 86 83 89
WYNBERG.													
April May June July	inches. 29°753 29°778 29°955 29°924	61°9 55°1 53.6 52°6	75°4 64°0 65°8 65°9	54.2 50.0 48.9 47.9	91°0 75°8 80°0 79°0	18th 2nd 10th 2nd	::	0 41.5 39.2 41.0 39.0	24th 29ht 1st 28th	::	inches. 4.780 17.930 7.070 2.590	10 20 10 6	83 86 83 87
MOSSEL BAY.													
April May June July	inches. 29.930 29.860 30.084 30.038	61.9 57.5 55.7 56.0	63.3 64.6 64.6 0	59.0 54.4 52.6 52.8	74.0 79.0 76.0 74.0	18t6th& 18th 20th 3rd & 1	15th	50°0 52°0 47°0 47°0	24th & 2 30th 16th 28th & 2		inches. 0.700 1.920 0.440 4.110	9 8 5 5	84 77 83 90

### THE CAPE

# MONTHLY MAGAZINE.

Our Relations and Responsibilities to the Native Races.

By Victor Sampson, B.A.

[Prize Essay which obtained the award of the Gold Medal presented by the Hon. W. Porter, C.M.G., Chancellor of the University of the Cape of Good Hope.]

IN 1815, amid the re-adjustments of territory consequent on the overthrow of Napoleon, there finally fell to the lot of Great Britain a tract of country comparatively isolated and unknown. It lay in a part of the world far removed from the late sphere of European action, and altogether out of the stirring events which had just closed the great European chapter. Its name might now and then be mentioned in the Council-room of Downing-street, or in the offices at Leadenhall, but in general, Englishmen knew of it but little, and perhaps cared less. The fears of its discoverer, Diaz, had named it the Cape of Storms; the ambition of its first Sovereign, John II, had changed it to the Cape of Good Hope. century and a half the Dutch had alone dared to colonize it; and while the thunders of Pitt or the triumphs of the First Consul engaged the attention of Europe, the far-off Boer was slowly wending his way stake by stake, \* further and further into the wilds of South Africa. Patient and plodding, the success of his endeavours was either unknown, or excited but little interest. In Holland he might be remembered, but Holland was now one of the least of the States of Each great maritime power had, it is true, known the obscure coast, but each in turn had looked upon it as little other than the Scylla and Charybdis of the south. The vessel that by the blessing of Heaven escaped the whelming of its waves, might at any moment be dashed in pieces on its rocks. The appliances of steam and of modern invention had not yet been made. Voyages of six or even seven months' absence to its shores were as common as they were dangerous. And the long exile gave rise to apprehensions

<sup>\* &</sup>quot;Anyone desiring a loan farm selects the spot he deems suitable, plants his mark, and puts down his name for it, for a while to make trial of it, or to see whether anyone segment for objection, if not, he gets it on loan, or on annual permission. The rights thus possessed extend half an hour in all directions round his mark." Governor Janssens, to Baron Van Hogendorp, 1804. See Cape Monthly Magazine for February, 1877.

VOL. XV.—DECEMBER, 1877.

which but magnified the terrors of the passage. Old pictures are still to be seen with antique galleons, or East Indiamen labouring on the summit of impossible billows, or plunged into unnatural depths. To have rounded the Cape of Storms conferred more distinction than the circumnavigation of the entire globe in our day, or the attempts at the north-west passage. Vasco de Gama gained more glory than Parry, he will be remembered longer than Maclure. But the Empire won by Clive and consolidated by Hastings, at length called the serious attention of English statesmen to the obscure outstation. The maritime phenomenon became a necessity to India; and British enterprise succeeded to the long labours of the Dutch.

So small sometimes is the origin of things. Simon's Bay was the only port England cared to obtain; the Table Bay peninsula, the only tract she hoped to colonize. To-day there rises up before the English nation a dominion vast in extent and boundless in resource—a dominion peopled by thousands of their countrymen, governed by their laws, and pointing with immense import far into the unknown future. Of that future it is not permitted man to say; but of the objects which experience teaches that a good Government and a wise people may achieve, none appear to us of such lasting importance to South Africa as a right issue to the question before us:—"The relations and responsibilities of the civilized communities of South

Africa to the Native Races."

And at the outset we should have a clear idea of all that is involved. For more than three thousand years the history of the progress of mankind has left the East and the South. For more than thirty centuries civilization has been travelling Westwards and Northwards, leaving its first homes to darkness and obscurity. The splendours of Babylon, the sceptre of the Ptolemies and the thrones of the Cæsars, have passed away before the nameless law. The Saxon and the Slav have risen to the purple on the steps of departed Empires, and the power which was once the pride of the Indian Ocean is now the glory of the northern seas. To-day we are returning. But the lands which had once known the first gropings of intellect and art are now the wilds of superstition and barbarism. The light has long since gone out. The jungles of India or the forests of Africa can no more tell of the Queen of the South than could the shepherd boy on the slopes of Mycenæ, or the plains of Nineveh, of the ruins that lay beneath him. The past has been forever forgotten by the people in the places of the world's youth. But worse, they have forgotten to progress. Their social and moral advancement has not even remained where it was left. They have retrograded. And the stones at the foot of the mountain have not laid more silently, where they once rolled, than has the barbarism of the Savage preserved the features to which it was abandoned.

And it is with such that we have come in contact; with races too rude to have remembered a past, too degraded to have produced a history. From the battle of Marathon and Thermopylæ,

on the contrary,—earlier, from the days of the Hebrew prophets the true progress of mankind has travelled a long and a fearful way. Revolutions, commerce, unrivalled heroism, unparalleled infamy, all that is great in mind, all that is base on earth, the loftiest sentiments of virtue, the lowest contortions of vice, all in turn have engaged the attention and moulded the experience of man; and that man for twenty-six centuries has been European. Plato, Cæsar, Newton, the splendours of Greece, the ruins of Rome, the art of printing, the inventions of gunpowder, the locomotive and telegraph, above all, the teachings of Christianity, have deeply affected the frame of his mind and of his manners. The hereditary energies of his race have been strengthened by the examples of the past, and the preservation of the objects of its greatness. Contemplation and reflection have added new impulses and vaster motives. While the teachings of recorded history and of written tradition have served to keep alive the memory of his earliest achievements. Demosthenes could point with no greater fire to the spear of the Athena Promachus, or the columns of the Parthenon than have the lives of great men to the glories of their race. And from the recollection of them have often sprung the loftiest ambitions. But not this only, for Greece, with all the memorial of her past before her, her people with all the learning of their ancestors in their possession, made no intellectual progress from the siege of Corinth to the fall of Constantinople. Good government, government purged by the most terrible experiences has been the latter lot of the European as compared with that of the Savage. Free institutions have been formed for him, and in institutions has been the secret of his stability. The teachings of history and philosophy, it is true, may be lost on the multitude, but the obedience of all is required to Law, and in general Law has been founded on enlightment. The moral results of the highest speculations and of the most daring discoveries have thus been preserved to him in the conduct of his every day life, and progressive Civilization has been maintained even in the person of

With the Savage, with the Kafir, it has been far otherwise. Few or none of these influences have schooled him step by step to the perception of a higher life, or fitted him for a nobler purpose. Superstition has been for him the mainspring of law. Its enactments, the sole fountain of morality. His system of society has alone been protected against the excesses of tyranny on the one hand, and of internal decay on the other, by the jealousy of the Chief, and the sensuality of the people. Of the curious laws which nature has framed for herself, and of the methods by which her extravagances are of themselves neutralized, no better instance can perhaps be found than her corrections for native misrule and native indulgence. The Chief is absolute, he is uncivilized. The native is polygamous, at times he openly countenances prostitution. Yet native Government is comparatively mild. Kaffraria has not been overpopulated. The explanation is brief. A native chief is as fond of men as Frederic William was of tall soldiers, or a dowager duchess might be of old china. Upon the number of his warriors depends the extent of his fame, and often the existence of his tribe. "God is eminently on the side of big battalions" among the native races. Now any act of tyranny is at once followed by the flight of the persecuted subject to the ranks of a rival,-to become the faithful warrior of his new chief, and the most bitter enemy to his former sovereign. The means of flight are always at hand. The protection given by the new chief is invariable. And thus to preserve his power and ensure his reign, the native despot is compelled to a more moderate course than he would otherwise pursue were he the sole potentate in the land. And this sole rule nature has again prevented, when, providing for the polygamy of the native, she instituted one of the most striking customs of Kafir life.

During the lifetime of each chief, two of his wives are fixed on, the one to become his "great wife" (omkulu), the other to be the "wife of the right hand" (owasekuneni). By this ceremony the eldest son of the "great wife" becomes heir apparent to the tribe; while to the eldest son of the "right hand wife" a certain portion of the tribe is allotted; with which, on the death of the father, he forms a new tribe. This new tribe, subject to the paramount jurisdiction of the brother, somewhat as a Greek colony might have been to its Metropolis, is otherwise wholly independent. The process is a singular, and perhaps only parallel to the periodic colonies sent forth by a hive of bees. But by means of it the whole of Kaffraria has been populated, and the political evils of polygamy obviated;—for, of morality, the Kafir in his rude state, has no idea, save (so long as he shall not be tyrannised over) in the matter of

allegiance to his tribe.

And thus, without an object to the energies of its people, but the fortunes of war or the bare sustenance of life, the progress of the independent tribe has varied with the character of its chief and the list of its warriors. Some of its number may have accepted Christianity, but, in general, superstition has so fixed itself on the native mind, and contentment so paralysed its action, that reason and thought have nearly become effete. Intelligence the Kafir possesses in no ordinary degree, but from mental acuteness, allied to no one virtue, has come the incarnate offspring of falsehood and cunning. Indeed, in him the forces of humanity have so long lain dormant that they have well nigh become petrified. So low has he sunk that the questionings of intellect never incite him to contemplation, but a perverted imagination at once assigns reasons monstrous or ridiculous. The discoveries, therefore, which have been the first lights of our civilization have eluded his grasp. The heavens have neither called him to philosophy nor nature to science. And for centuries he has remained the same untutored being we still find him,

In our relation, therefore, as European to Native, we stand as a people certainly superior in point of government and means of organization politically, in our average enlightment and amenity socially, and in our acceptance as a race of a lofty and pure religion, morally. The one is cultivated, the other degraded And if, at any moment, it be in the power of the stronger to lift the weaker, if the conversion be national and enduring, the people who achieve it will have won one of the noblest triumphs that has yet attended the efforts of intelligent humanity. For while the records of military achievements or of domestic legislation go down to the admiration of posterity, there will stand out from amid the centuries a solitary and statelier glory; the meed, not of having won the empire of Alexander or retrieved the fortunes of Napoleon, but of having raised a people from a degradation worse than death, and of having preserved to the

progress of mankind a race till then unworthy the task.

But this is not to be brought about lightly. We must never forget that the work of our civilization has been a long and a terrible toil. Too often have the body of the martyr and the blood of the saint been the brick and mortar of its unfinished habitation. We have come, as it were, after an enormous and difficult circuit to the summit of a gigantic cliff. At its base lie the nations we parted from in the days of the world's youth. Can we lift them up? Can we place them on a level with ourselves? For we have become inured to the atmosphere which we breathe; we have grown strong by our toil, and have become fit for the enjoyment of the benefits we have These benefits Carlyle would not have us extend gratis to those who have borne no part in their acquirement. But if more charitable, it still remains to our earnest consideration, whether the fruits of our travail can in a day be transplanted to the person of the uncivilized. And if race be of as much consequence as the conditions which have affected it; if long influences be not so much the cause of distinctive features as original distinctive creation, then the question only becomes intensified, and we must proceed more cautiously to the objects of our philanthropy.

Seventy years actual possession has extended the rule of Great Britain in South Africa, with the exception of the Free State, from the shores of Table Bay to the banks of the Limpopo. In her steady advancement she has, from time to time, come in contact with various interests, and opposed herself to a vast native power. In every relation she has necessarily come as a conqueror, while often professing herself merely a civilizer, and thus her action has not always been consistent nor altogether considerate. It has complicated the position. The colonies of Natal, the Orange Free State, and the Transvaal, were in a measure founded from a feeling of intolerance of her rule. The Diamondfields sprung up by themselves. And thus latterly there have been five Governments in South Africa, at all points in contact with a race numerically superior, though not practically at one. Now, different policies for natives in different grades of civilization may no doubt be beneficial, but separate Governments with little or no co-operation on the most vital points cannot but be injurious. In the words of Earl Carnarvon,\* "As long as the natives, who are shrewd observers in such matters, perceive that the comparatively small European population of South Africa is divided under a number of Governments, which not only are not in close and cordial relations with each other in regard either to native questions or to other matters, but are in some cases estranged by controversies which are sometimes sustained with only too much warmth, they must continue restless and unsettled, they are at the mercy of factious intriguers, and are ready to listen to suggestions as to their power of combining successfully against the disunited European Governments." And yet it is precisely the English people that history will charge with these divisions. There can be no doubt that the evil has been promoted by what Sir Garnet Wolseley,+ speaking of the Langalibalele rebellion, characterised as "sensational narratives based on unsifted evidence which find credence too easily with the people of England, where, in our intense anxiety to protect the weaker race, our minds are liable to believe that the strongest must always be in the wrong."

Englishmen have been too ready to condemn where they have not been capable of judging. Their prejudices have even extended to the English Government. In 1834, after the first Kafir war, when the "black hordes had swarmed across the frontier, along a line of 400 miles, burning, killing, and driving cattle," Lord Glenelg's despatch to Sir Benjamin D'Urban arrived condoling with the savage, and condemning the colonist. In 1875, when a veteran Governor had acted with firmness and promptitude in an emergency such as only those acquainted with the native character can appreciate, a grateful colony beheld him with sorrow recalled. It was in this way that the humanity of England forgot the claims of her own blood. It was here that "her philanthropy forgot justice in the warmth of

its benevolence." t

Native questions, like native policy, should be left largely in the hands of those who live in the midst of them. The humanity of Englishmen may be trusted to ring as truly in South Africa as in Great Britain. They are as proud of their love of freedom, and as desirous of its extension to others, under the Southern Cross as under the Northern Bear. But they are conscious of practical difficulties, and of stubborn necessities of which philanthropists in Exeter Hall have no conception. And thus the action of England, however sincere, has often

<sup>\*</sup> To Sir Henry Barkly, 4th May, 1875. (Vide Papers on South African Affairs, laid before the Imperial Parliament in 1875).
† Despatch to Earl Carnarvon, 12th May, 1875. (Vide Printed Papers on Natal

Affairs laid before Imperial Parliament) "British Policy in South Africa." - Quarterly Review, 1877.

been injurious. Her crimes, it is true, have not been such as strike the imagination with terror, or appal the mind by their cruelty. They have been the injuries of neglect and disbelief which have gained force by recurrence and become doubly bitter because perpetrated by kinsmen. And so the retribution has not been ignominious defeat or open confusion. It has been the calamity of divided counsels and of estranged sympathies, the heritage of alienated policies and mutual weakness, which has led to more than one Kafir war, and has ever saddled the elder Colony with the danger of each neighbouring disturbance. It has fettered the action of Great Britain herself. When she has wished to withdraw her jurisdiction, she has found it necessary to extend it. When she would gladly have curtailed her responsibilities, she has been obliged to increase them. The Transvaal which, with the Free State, she abandoned in the hopes of its self-government has again been forced on her hands. And in general, while she might have wished for a single stable Colony, she sees now no remedy but in a South African Confederacy.

In her advancement then northwards from Table Bay, a journey more interesting than the travels of Livingstone or the adventures of Stanley, because not the movement of an individual but the progress of a civilized people, and the naturalization of improved laws, England at the hand of the Dutch has come into the possession of nearly half a Continent. But the extension of her rule in South Africa has not been more like a fatality than her mission would appear world-wide. In North America, in Africa, in India, in Australia, and in New Zealand, the enduring colonist has been English. It may have been said of Rome that she never conquered but she inhabited, but it is no less true of England that she never inhabits but she governs. And her laws of the civilized laws of to-day are those best calculated to form great peoples and to

make enduring nations.

But a great position has a corresponding responsibility. And of all the responsibilities which a people can incur, none appear to us

of such weight as that which the present question entails.

First, it seems a sad and a fearful experience that at the approach of the white the native should gradually disappear and ultimately become extinct. In America the splendid type pourtrayed by Fenimore Cooper is now the miserable specimen of Butler or Mark Twain. In New Zealand the Maori—that Achilles of savages—is retreating like the Centaurs of ancient Greece. In South Africa the Hottentot is daily disappearing, the Bushman all but extinct. And it should be remembered that in every instance the permanent invader has been British. India it is true is a splendid vindication of our rule. But the races of Bengal or Madras were never the savages of the Mississippi or the Kei. The splendours of Delhi, or the learning of Benares, could fill the minds of even Burke or Macaulay with admiration. The huts and kaaals of Kaffraria

disgust even the boer and the trader. The one has no analogy in the other. And because there is no likeness, no promise that the red Kafir will as soon attain the civilization of the polished Bengalee or the gentlemanly Rohilla, the action of the English Government has become more difficult, and its responsibility far heavier. But it has been said that the Kafir is increasing instead of decreasing-and necessarily so. For since the arrival of the colonist, the facilities of living have been made greater to him. His person, property, and customs have received the protection of civilized law. His destructive tribal wars have been put a stop to. Everywhere he has received, if not a welcome, at least an asylum. He has been cared for, even to the detriment of European interests. But while thus fostered, the customs of polygamy and wife-labour have not been forbidden him. Where, therefore, in his rude state, they were necessary to his condition, the first to balance the casualties of Kafir Government, the latter to allow of his nomad life, under civilized government they have been balanced by no such restrictions as nature had originally provided. Favoured in this way by security, and promoted by unnatural license, numerical increase has only been a question of time. But when those locations are invaded and those habits come to be regulated by Christian enactments-the Kafir will no longer increase as before; if he takes to drink he will entirely disappear. He has fared better than the Hottentot, and has remained longer than the Bushman, because he has had some system of government, he has possessed some institutions, and he has been far more numerous at the outset. But when those systems and institutions give way to a more civilized presence, the extinction of the one will be accompanied by the absorption and ultimate decay of the other, unless he can accommodate himself to the altered circumstance. Of all barbarous races, the African negro has alone thriven side by side with the white; and it wants but little acquaintance with the negro character to be struck with its pliability-its amenity to civilized law and habit. The secret of his success has been the ease with which he has passed from the one state to the other. And the survival of the Kafir will depend upon the degree in which he can fulfil the same condition.

It may seem then an extravagant philanthropy to bewail the loss of the Bushman and Hottentot, and to deplore in his place, for instance, the villas and vineclad slopes of Wynberg and its surroundings; but if it be a particular case of a general law, it cannot fail to touch every humane mind. To every humanitarian must come the passionate question: Has the white man the right to invade those territories, and if so, what are his duties to the people he dispossesses? To the first, under certain conditions we answer, yes. The second will form the subject of our concluding remarks. A Colony wherever settled seems to us justified, if rendered necessary, by the requirements of advancing civilization. It is fully vindicated when it elevates in any degree the races which it may have dispossessed. Now, to the coal boy and factory girl of last century must be traced the necessity for our colonial empire of to-day. And when therefore a people like that of Great Britain, from motives of sentiment and in the face of necessity, refuses to proceed, we hold it a disobedience to the law of progress which has favoured them thus far. No greater punishment will befall them than their own decay. Other nations less fanciful, and perhaps less capable than they, will succeed to the duties they may have feared to undertake, and on the ruins of their power will step to the possession of their provinces. In other words it is our opinion that when a nation has so increased that in spite of invention and mechanical appliances, if not on account of them,more space is necessary for its outgrowth, it is justified in seeking new spheres of operation. And if in such search it come in contact with races, capable indeed of barter, but wholly unequal to the higher possibilities of their position, we believe civilization to have the right to step in and to proclaim those wastes in future lands of commerce and fruitfulness. Rude seizures of territory we do not defend, much less the shedding of a single drop of blood in their acquisition. For us Pizarro and Warren Hastings have no palliation. But there are other modes which, when necessary, without violence and in the end of benefit to the inhabitant, are we maintain faithful steps in the progress of the superior people. English rule in South Africa has not altogether been necessary to the commerce of the English people. And without, therefore the full justification which we have required above, the responsibilities of the English nation have become heavier in proportion as their occupapation of South Africa has approached the nature of an invasion. For we must remember that no tribal organization can long exist by the side of white institutions, and that therefore the Government which settles a single Colony in the midst of barbarism takes upon itself a responsibility which only instant evacuation can divest it of. For interfere or no as we may, from the day of our appearance it becomes a question of the future, whether the tribe shall perish through our neglect or flourish under our care. Immense difficulties surround the whole problem. As a rule, savage nations shrink like shellfish at our contact. The wild untrammelled habits become overawed or further debased. Marriage forgets its duties-the domestic instinct is violated-the whole vital principle of their rude institutions becomes morbid and inadequate. New conditions arise which cannot be fulfilled. And in fine what the aborigine once was, hunting in the wilds of his forest or fishing in the streams of his river, he is no longer now, clothed in European costume, living amid European cities and acted on by European customs. This seems an universal experience. For while the morality of the savage like the morality of all paganism had been the good of the state or tribe first, and through it of the individual, among Christian communities he finds the reverse in practice. Intelligent

enough at once to perceive the personal advantages, to partake in pleasures necessarily provided for the individual under such a system, but without the education necessary for its higher virtues, without the protection afforded by its various social influences, he falls at once into our lowest vices and abandons himself to our meanest habits. The good of the tribe is forgotten. He takes to drink, and after no long sojourn in our midst perhaps hears of the removal of his Chief and the dismemberment of his people without a pang. The individual is followed by the tribe, and soon their place knows them no more.

This we believe to be no exaggerated picture of what would occur; of what does occur in isolated cases, if having introduced the poison of our presence, we refused to counteract it by assuming the government of the race. And here our first step should be the removal of the Chief from supreme authority. For it is only when the influence of the Chief is broken, influence despotic not only in the political, but all-powerful in the social and religious life of the native, coercing alike his conscience and his will, that we may disabuse him of much of his ignorance and superstition. It is here that the die is cast, whether he will ultimately become a sober and useful citizen, or whether like the beast of the field he shall disappear. It is here, if ever, that we may commence to win his obedience to more equitable law and enlightened government than he has yet been accustomed to, and which he may now be made fit for. The imposition of that law is no wrong; it is a duty. The wrong, if wrong it be, was committed when the first settlers approached him with tokens of peace and good will. And it is now when that wrong would appear consummated, when not only his possessions have been taken from him, but his public liberty has been infringed, when we superintend his incoming and his outgoing, that we may work for him and his race an eternal good: that we may in measure lift him from barbarism to civilization, and place him once more on the path of progress and future usefulness. One thing is certain, England can never draw back in South Africa, and as long as she remains she is bound by every consideration of humanity and self-interest to do her best and her utmost by the races she has subjugated.

The native races of South Africa may be divided into four great branches. The Bechuanas, the Zulus, the Kafirs, and the Hottentots. Under the first fall the Basutos, Batlapins, Baralongs, Bakurutse, Banyai, and Bangwaketse. Under the second come the tribes of Natal and its northern frontiers, the Zulus proper, Amazwazi, Matabele, and Makwapa. Under the third fall mostly the tribes between the Kei and Umzimkulu, such as the Fingoes, Galekas, Tembus, Pondos, and Pondomise. While under the fourth and last, come the Bushmen,

Damaras, Namaquas, Korannas and Griquas.

Their aggregate population is enormous. The Frontier Defence Commission pointed out that within and on the colonial border 100,000 males might be concentrated. The true population of Kaffraria is half a million. In Natal there are about 350,000 refugees, and under Cetywayo, in Zululand there are probably double that number of subjects. The Bechuanas, stretching from the Wittebergen Reserve and Orange River to the Zambesi, are simply innumerable. And in relation to these vast hordes, occupying some of the fairest portions of the Continent, the total white

This numerical relation need not, however, be alarming. It is only when some universal system of wrong and oppression has made a suffering people mad, that such diverse interests and opposite natures as are here presented are to be feared. The whole social and physical characteristics of these people, originally distinct by nature, have been further sundered by the degrees of their contact with civilization. Some under our rule are contented and considerably enlightened. They read, write, and seem to have arrived at a true idea of their relations to us. In a few instances they have made even higher progress. Others, however, pay us but the most nominal allegiance and have but the smallest enlightenment. The progress of civilization has been unequal, and thus, as native interests have daily become more diversified, their sympathies have grown

daily more estranged from one another.

The natural differentiae are even more marked. "The Hottentot, sly, cunning, cringing, cowardly—the Kafir bold, haughty, proud, and imperious. The Hottentot weak, small-limbed and insignificant in station—the Kafir powerful, well-built, and of noble presence. The Zulu quick, fearless, and warlike. The Bechuana slow, timid, cautious, and prudent."\* The distinction has run through our whole experience of them. The Kafir has given us most trouble. The Hottentot has been the least impressed. The Basuto has sought our protection. The Zulu, whom we have as yet known least, has stood proudly aloof. Treachery has been the characteristic of the Bushman and Hottentot, insubordination that

of the Kafir.

And thus in Natal, Kaffraria, and Basutoland, there have been tribes who, had they been able to combine, could long since have swept us from South Africa. But they have never been capable of union. Their opportunity has now passed. Mutual jealousy has led them to surrender their independence if only they might strike a blow at the interests of their rivals, and these jealousies still exist. "There is that strong feeling of animosity and mutual suspicion between the two tribes, that Kreli suspects if he were involved in war with us, that Gangelizwe would turn upon him, and Gangelizwe on his part suspects that Kreli would act in like manner against the Tambookies with the idea of recovering his lost land, if Gangelizwe should take up arms against us." So writes the Honourable the

<sup>\*</sup> Vide Cape Monthly Magazine for December, 1875 .- "South African Natives."

Secretary for Native Affairs on the relations of the two leading chiefs of Kaffraria, in his circular letter of August, 1876.\* In 1851 the nearest approach to union was made by the Basutos, Hottentots, and Kafirs. But Kafir and Hottentot separated territorially from the Basuto, and all three split into tribes commanded by independent leaders, and without supreme authority, soon fell beneath the more organized attack and resource of the white. The Basuto under his great and celebrated chief, Moshesh, held out longest. But even he, protected by the natural and almost inaccessible fastnesses of his position, was at length compelled to submit. The union had been worthless. It had been without direction in the beginning-it had been without power in the end. For a quarter of a century since, the British Colonies have been free from native irruptions. The Diamond Fields, concentrating a large white community in the interior, have strengthened the position. They have diverted the attention of the native. But for lasting security and ultimate increased prosperity, kindly and wise government must be trusted to sow the seeds, not of discord but of that contentment which fears to endanger itself, and of that satisfaction which gives no handle to the unruly. "My father, I hear the rumours and have endeavoured to find out their origin, but cannot. What is to become of me should war break out? I have hired land, and have a large flock of sheep, and have wagons on the roads. I will lose all in case of war."+ These are the words of a Gaika headman to Mr. Brownlee, as he passes through the Gaika Location in 1876. Are such words not more re-assuring than volumes of official memoranda and more laudatory of our policy than dozens of political ovations? Indeed, if we look at the Blue Book for Native Affairs for 1877, we cannot but be struck with the progress made in every department of native life since the introduction of our rule. From the Kei to the Umzimkulu, from the coast to the desert, native settlements have been formed under the control of experienced magistrates and the operation of wise laws. Everywhere schools, chapels, and workshops have been set up. No expense has been spared. No effort left untried. And when we read reports like that of Mr. Levy, (1) Tembu Agent, or Mr. Hargreaves, (2) missionary, the one calling together a native "Society for Promoting Civilization" comprised at once of forty members possessing "square houses, walled orchards, and stone kraals, fields of wheat,

<sup>\*</sup> See Blue-book for Native Affairs, 1877. + Blue Book on Native Affairs, 1877, p. 152.
(1) Blue-book for Native Affairs, 1877.—Page 103. (2) Blue-Book for Native Affairs, 1877.—Page 80.

Note.—This part of our essay had been written before the disturbance at the Kei. Though originating in a mere beer fight, the collision marks the deep ill-feeling between the two tribes. We believe the words of Mr. Brownlee, quoted above, apply more than ever at present. There are many contingencies, however, which may lead to hostilities. In such an event the lesson taught the natives, rightly or wrongly, should be very severe, addepends with neutral tribes on the power we display on such an occasion. A native disturbance successfully quelled may thus serve as a thunderstorm—it will clear the air.

and conduits of water;" the other telling of the moral condition of the people-of their four hundred and seventy day-scholars, their 2,000 church attendants, their forty-four preaching stations. Or when we read the varied programme of the Lovedale Institution, and the growing interest everywhere evinced in the useful arts, we cannot but think that the day of Kafir wars within the Colony has passed, and that the time of native disturbances is fast drawing to its close. Fingoland, the Idutywa Reserve, St. John's Territory, and Griqualand East, are now flourishing locations. Basutoland is a monument of what well-directed effort and wise counsels can For beyond the natural amenity of the Bechuana accomplish. character, lasting praise is without doubt due to the policy pursued in the country. Mr. Griffith and Mr. Surmon, it is said, may often be heard quoted by Basutos as their ideal of "men." The lesson is invaluable. That the native should alone rise to a conception of the part moral virtues play in the full man is itself a step in his civilization. And while it is the noblest way by which they can be taught, we are glad that there are so many others among them whom they may as justly admire.

(TO BE CONCLUDED IN OUR NEXT.)

## Grietje.

(From the Dutch.)

I always rise so early now;
I'm up the first of all;
My mother wonders I don't wait
To hear her knock and call.
I set the kettle on the fire
Before she is astir;
I know exactly what's o'clock
By Louw the carpenter.

It wants a quarter—just—to six—
I never knew him late—
When Louw, his basket in his hand,
Goes whistling past the gate.
That Louw, he is a smart young man,
He looks so brave and strong;
His master trusts him anywhere,
Although he is so young.

Louw's not a sloven in his dress,
And soap he does not spare;
His hair is always combed quite smooth;
His apron tied with care.
His hammer, chisel, plane and saw—
He got them as a prize—
He keeps them all so clean and bright,
They glitter in one's eyes.

His master's customers like Louw
Of all the workmen best,
For many who go out to work,
They prove a perfect pest.
And he's so cheerful and so kind!
Not surly, sour, and grim!
Where others quarrel, drink and fight,
Be sure you'll not find him.

If asked to drink a glass of beer
Or take a drop of gin,
Louw won't refuse the glass of beer—
That surely is no sin.
But Louw says—and I say so too—
Gin-drinking never made
A working man fit for his work,
No matter what his trade.

On Sundays!—you should see him then,
This Louw the carpenter!
He has a coat and boots as fine
As any officer.
And when he wears his striped silk vest,
His silver watch and chain,
There's not a lady in the land
Need treat him with disdain.

When he goes past our window, I
May happen to be there,
But I pretend I do not see
This Louw the carpenter;
Then, though I am so very rude,
So stupid and ill-bred,
Louw says "Good day!" and passes
But often turns his head.

If he accosts me in the street,
My head begins to swim;
I feel as if I'd sink away;
I shake in every limb;

My cheeks—oh! I get so annoyed;
I hope Louw does not see,
For he might think—I know not what -And what is Louw to me?

Whene'er I praise the carpenter,
There's Nell, across the way,
Has always got - the nasty girl!
Some spiteful word to say.
But wait! let Nell herself take care;
Her secret I found out;
My Louw's far nicer than her Jan
That she's so crazed about.

Perhaps Louw will set up for himself,
And have a shop and house;
But where's the money? Louw, I know,
Is poor as a church-mouse.
Well, poverty is no disgrace,
And service is no shame;
If only he is true and good,
And keep an honest name.

The money left me by my aunt
Who died at Amsterdam—
And so much in the Savings Bank—
So much from uncle Bram—
Well, let me see! why, that would make—
Oh fye! this is too bad,
If Louw should guess I've such a thought,
He'd surely think me mad.

If Louw should come, what could I say?
Not "Yes!"—that wouldn't do!
I must insist that he first get
My mother's leave to woo;
And then he can come back to me
With full consent from her;
Ha!—perhaps I'll dream again to-night
Of Louw the carpenter!

## Idborate Fred. S. Matermeyer.

#### A BIOGRAPHICAL SKETCH.

South Africa is still too young in its history, and too poor in its biographies, for us willingly to let slip the memory of any of its gifted sons; and, therefore, to those who, in the land of their birth or adoption, talk slightingly of everything, or every person colonial, we would shew what a colonist achieved under great disadvantages, and with the comparatively imperfect educational means prevailing twenty-five years ago; then, while we observe how he made his mark in Colonial History through his public life and character, we shall discover his secret, as we reverently lift the veil and catch a passing gilmpse of that inner life, that hidden source of self-sacrificing motives "which actuated the pure and noble current of its outward manifestation."

Our materials are, unfortunately, too scant to permit of anything but an imperfect sketch of the character and work of Mr. F. S. Watermeyer, which we regret the more because, while a few extracts from his letters will reveal something of his inner life, the public press of the day throughout the Colony was strong in its expressions of admiration at his brilliant but short-lived career, and

of deep regret at his early death.

Something of the life of a man must be worth knowing of whom the press, expressing it in different ways or in fuller details, could speak in the following terms, to be read in the Graham's Town 'Journal:-"Like Canning, Mr. F. S. Watermeyer has died too early for his country, but not too early for his fame-a man of parts and culture, of untiring industry and unwavering perseverance, of an inquiring analytical and eminently casuistical turn of mind, in the prime of manhood and the first flush of success resulting from the exercise of his matured powers, he had a bright prospect in store for him. . . . . He was one of the few men whom the working of free institutions has yet brought into prominence, whose removal would be a public loss. Neither the Bar nor the Legislature of the Colony could spare him; and the regret excited by his comparatively early death is increased by the knowledge that his end was hastened by hard work. Few public men have left behind them a reputation so unblemished, or have been cut off in a career of greater promise."

Frederick Stephanus Watermeyer was born in Cape Town on the 14th April, 1828, nearly four years after his brother Judge Watermeyer. The associations moulding and forming his character in early life cannot be better described than in the words of the tasteful writer of the sketch of Judge Watermeyer—"whose memory is a public treasure to the land of his birth; and his life, although its earthly aspects are closed and sealed, will remain for generations

to attract by its lustre, to rouse by its power, and to win by its serene and beautiful exhibitions of human excellence." No one will be surprised to hear that the character of the younger brother also showed clearly the effects of the healthful and ennobling influences of that early home-life which never lost its power over the brothers:—

The circumstances and associations of the home into which he was born were eminently favourable to the development of a high type of character. His father, though born in the Colony, had the advantage of an European education, having been sent away at the age of five years to the house of an uncle in Hamburg. On his return to the Colony, he continued to cultivate his tastes and carry on the education which he gained in Europe. Without being either a scientific man or a classical scholar, he was a man of varied and extensive reading, and as well acquainted with English and French as with German and Dutch literature. His intellectual tastes, his personal predilection for study and literature, and his large wellselected library were important factors in the intellectual eminence and literary culture of more than one of his sons. Not less important were the influences and example of his mother in forming the character of Mr. Watermeyer. "Our mother," says one of her still surviving sons, "was gifted with a most amiable disposition and benevolent nature-a Christian mother, always intelligently labouring to cultivate the hearts and develop the characters of her children. She truly devoted her whole life to her family." If the common theory be true that the moral features of character are inherited from the mother, we can have no difficulty in "believing that Mrs. Watermeyer was a woman of unusual excellence; for the moral elements of her son's character were in every way as admirable and impressive as his intellectual power." This was as true of the advocate as of the judge. "The tasks of the school-room were continued at home with the most lively interest and friendly help on the part of his parents; and hence it was that his life was a steady growth, not only into knowledge but also into sympathy with all knowledge, and the richer side of his large and generous nature was cultivated as thoroughly and as carefully as his mental power; while love for the home of his childhood was the best proof of the wisdom of his home-training and of the lasting hold which that home retained upon the deepest affections of his nature." It is impossible to find words more applicable than these to Frederick Watermeyer.

When the Rev. E. Judge removed to Simon's Town in 1839, Frederick and his elder brother, E. B. Watermeyer, were sent as boarders, and they were always deeply thankful for the care with which that eminent teacher trained them "to habits of accuracy and precision of thought." The brothers were but two years together there, when the elder left the Colony to study law in Europe, and when they parted it was with the full expectation that in a few years Frederick would follow his brother, that he might have the advan-

VOL. XV.

tage of an University education to fit him for entering the church; but this long looked-for and strongly-desired anticipation of studying in Europe, or even visiting it, was never realized on account of the death of his father. This sad event overshadowed his prospects, burdened his young life with anxious cares and laborious duties, and while it forced him to give up his dearly-cherished hopes for the future, called forth the noblest qualities of his heart and mind. Young though he was, it at once melted out the pure gold of faithfulness to duty which beautified the altar of affection on which he offered his own will that the Will of the Highest might be done and the comfort of the family be sustained.

Instead of going as a student to Europe, he had to settle down as a clerk in Cape Town; instead of being able to carry out the desire of his heart and prepare for future usefulness by hard but congenial study in the old world seats of learning, he had at once to bend his neck to the yoke and his back to the burden of practical life, and when but nineteen years of age bravely to face the responsibilities and to grapple with the difficulties of supporting his father's

family and of fulfilling his father's obligations.

Many would have murmured at the former, and have refused to do the latter, but in him there was that true manliness which Thomas Hughes tells us is greater and nobler than mere courage, since it is bold and yet self-restrained, brave and yet self-sacrificing, strong because built on the rock of Duty. "Tenacity of will," he says, "wilfulness lies at the root of all courage, but courage can only rise into true manliness when the Will is surrendered and the more absolute the surrender of the Will, the more perfect will be the temper of our courage and the strength of our manliness.

'Strong Son of God, Immortal Love, Our Wills are ours' to make them Thine ';

and the strong Son of God left us the secret of His strength, 'I

am come to do the Will of my Father and your Father."

We see the flashings of this true manliness in the brave spirit, the hard work, the self-restraint, the faithfulness to duty, the self-sacrifice and the surrender of the Will of this earnest man. Altogether a new phase of life opened before him from what he had desired, but no sooner did he see that it was the right path than he threw all his energies into it. Before he was twenty years of age "he became the Secretary to one public company and the accomplished actuary of one of the oldest of our Insurance Companies." But his active mind craved for more work, and his loving soul glowed with love for his own, his native land, and rose up in indignant remonstrance against the intention of the British Government to make the Cape Colony a Penal Settlement, and young as he was, with earnestness he entered on public life and took an active and effective part in the busy excitement of political affairs.

Then came the great crisis in the history of this Colony. Was South Africa to advance at its slow but steady rate of progress in overcoming its natural disadvantages and in meeting its peculiar difficulties arising from its numbers of imperfectly civilized colonists and its hordes of barbarian neighbours? or was it besides its own criminals to receive from England a class of criminals skilled in all kinds of crime, who were to be let loose in the Colony and repeat here the evils under which the Australian Colonies were groaning and almost rebelling, and by that means fall back and down from the social standing it had reached? Let them once land and they could not be recalled; they would soon scatter about in the country where it would be impossible to watch and control their movements, and where they would enrich themselves at the cost of our farming population, and do incalculable evil among both the white and coloured populations. The terrible state of society in the Australian Colonies, where there were not thousands and thousands of natives, was pourtrayed in the newspapers there, in such terms as to make every one dread the name of ticket-of-leave men; and the wisest men of the day felt that the only possibility of escaping what those Australian colonists said was their curse, was at once firmly to protest and to resist by every means short of force the landing of

the first shipload.

But there was no time to lose; the ship with its unwelcome freight was upon the ocean, and soon made its appearance in South African waters. The men who knew the danger made it known through the length and breadth of the land, and the editors of newspapers throughout the Colony were indefatigable in their efforts to arouse men alike to their danger and to resistance. So ardent a patriot as Mr. Watermeyer could not be inactive. he was only twenty years of age, he started and edited The Observer newspaper during that keen controversy of the anti-convict agitation, and conducted that journal not merely as "a free and outspoken organ of public opinion, but made it the repository of some of the very best contributions to our colonial literature." The times were stirring, feeling ran high, the enthusiasm was intense, the excitement universal; the Governor, acting under orders from the Home Government, declared his intention to land the convicts; the colonists begged, and then demanded, that their protest against it and their appeal to the British Parliament should be first heard and answered; but what would now take forty days, required by sailing ships three times as many. Long though the struggle, there was to be no surrender. Thousands again and again in sunshine or rain assembled before the hustings raised in front of the Exchange or the Town House, and with breathless interest listened to the speeches of the leading men of the town, and as speaker after speaker, who had never addressed public meetings, became eloquent in their earnestness, as they pleaded with men to be firm to the end, because to their importunity and patriotic prayers their beloved Queen would hearken

and the British Parliament would consent, the old squares rang again and again with the cheers of the vast crowds, who pledged themselves to a bloodless resistance, which was, a refusal to provide supplies for the convict ship or even to the members of Government. Unmoved by threats they were determined to show by acts that their prayer was sincere, and great was their reward and glorious their triumph when the close of those exciting months saw the Neptune pass out of sight of our shores without having landed a single convict. To none was that reward richer than to those writers and speakers, those leaders and heroes, whose heraldic insignia are not to be found in "Dod's Peerage" but in the Peerage of Patriotism, whose nobler insignia of Truth and love of country were deeply engraven in the thankful hearts of their fellow-countrymen, and should never be forgotten by us who are preserved from the horrors of a penal settlement through that heroic struggle.

The successful close of that struggle brought no close to the earnest labours of Mr. Watermeyer, "who, with unceasing vigour exercised his thoughts and wielded his pen on every subject he thought of interest to man. On the departure of Sir Andries Stockenstrom and Mr. Fairbairn, as delegates to England, Mr. Watermeyer took charge of the South African Commercial Advertiser, and managed it, as well as The Observer, 'with a remarkable combination of ability, prudence and independence.' Subsequently he became a regular contributor to the editorial columns of the Cape Town Mail, and an occasional one to the Advertiser, and it was in the latter that he drew out, submitted to the public, and most forcibly expounded and advocated, the scheme of public competitive examination, which has since been so well organized by the Board of Examiners, and which has been developed into a regularly equipped South African University. Soon after this his manifold engagements in other capacities compelled him to withdraw from the newspaper press; but still his active mind never ceased what was to him positive relaxation in literary composition, and to the Cape Monthly Magazine he contributed some of the most valuable historical essays with which that periodical was from time to time enriched, while in the Volksblad he wrote frequent articles of a tone and character and ability which attracted attention and commanded respect wherever they were read."\*

"Mr. Watermeyer" writes another journalist, "has been in turn a proprietor, editor, and contributor, in connection with the newspaper press of the Colony. His contributions were always much esteemed as conscientious and painstaking commentaries on public affairs. There is so much irresponsible and vulgar writing finding its way into newspapers, with so little care for personal reputation or public honour, that we revere the name of a man who wrote indeed with fearless honesty, but with the spirit and language of a

gentleman." †

Full of hope as to the future of this, his native land, he writes to the lady who became his wife:—" By this time you are very near the shores of Britain. I shall not anticipate the feelings with which you will step on the land whence Freedom has gone forth to all the ends of the earth, and yet which it is your father's mission to convince of injustice. Let not the grandeur of the 'older land' remove your sympathies from that of your father's adoption and your own birth; a land the more endeared to you because mainly your father and your grandfather have been chosen instruments of Providence in elevating it from moral blackness and barbarism to a fairer place among the nations of the earth. If the Cape may now be named as one of the fairest of the children of Britain, she owes this honour to some in whom your affections are most bound up. May such as you shall yet admit to a place in those affections occupy that place not unworthily after their predecessors."

In 1852 he was married to Jane, the eldest daughter of John Fairbairn, Esq., whose name will ever be remembered as the foremost champion of liberty in this Colony, because of his persevering advocacy and successful labours for the emancipation of the slaves, the liberty of the subject, the freedom of the press, the Anti-convict

Agitation, and the Colonial Parliament.

Mr. Watermeyer gave and found in that union the affection, sympathy, and strength which had been his ideal of the sacred blessedness of marriage, and which he had been delighted to observe amongst his most intimate friends. Would that brave heart have been human had there not been times when it felt deeply this need

of loving sympathy and hopeful encouragement?

He always impressed you as being a man hopeful in his earnestgenial in his thoughtfulness, cheerful in his industry, tender in his energy, and charitable in his convictions. delighted to meet with a congenial spirit and discuss the merits of a book, or the aspects of society, or the state of politics, or plans for improving humanity, or the phases of religious thought. flagging industry and indomitable perseverance he recognized the necessity of cultivating a taste for reading, devoted himself to hard study, and succeeded in an eminent degree in acquiring, under great disadvantages, a vast amount of mental riches which fitted him to take a high position in every profession he followed. But the very height of the standard of intellectual and moral excellence he placed before himself and to which he aspired, made him like many before him, more sensitive to his shortcomings while longing to reach his goal. At times he could write in the following strain as he performed his many and difficult duties:-" I am not of weak heart myself, but you don't know how humiliating is the position which I sometimes occupy, when I reflect as in the presence of my Creator, what are the advantages with which He has endowed me, and how slightly I esteem them, or rather what slight proof I give of the esteem in which I hold them by the slight and uncertain use to

which I put them." Or, again, years afterwards, he could write:—"What is all this to be glad about—these birthdays, only another call at best for Don Carlos' lament, 'Drei und zwanzig jahre, und nichts fur die unstarblickheit gethan,' (full three-and-twenty years I now have lived, and nought achieved for immortality.) I suppose every man says something of the kind to himself at every turn of the year and is little the better or the worse for the consideration: I don't know whether I am to be a better or wiser man this 'half,' as schoolboys say, or not, I suppose I am bound to try; but the older one gets the more difficult does he find life, that is, the healthy performance of those functions of the intellectual man of which the Scriptures give such apparently easy descriptions."

In the opposite scale to these strains, place the weight of his earnest active life, and we can then in a measure understand his delight in this description of life as expressive of his own desire:

"At least not rotting as a weed,
But having sown some generous seed
Fruitful of further thought and deed.

To pass when Life her light withdraws Not void of righteous self applause Nor in a merely selfish cause—

In some good cause, not in mine own To perish, wept for, honoured, known, And like a warrior overthrown.

Whose eyes are dim with glorious tears When soil'd with noble dust he hears His country's war-song thrill his ears,

Then dying of a mortal stroke, What time the foemen's line is broke And all the war is rolled in smoke."

The hours of Mr. Watermeyer's active life were to be crowded with still more numerous engagements as he entered upon fresh and enlarged spheres of duty. Many a one who, like himself, had been brought through home and scholastic influences to the watershed of life's starting point, had passed onward in the slow and measured flow of a long, uneventful, and unproductive life; but he soon separated from these and made his course with ever hastening flow adown the steeps and through the vales, -here, with its current sweeping against and passing over the difficulties which would hinder it; and there, welling over in generous impulses and helpful influences which awakened men's gratitude, aroused men's admiration and strengthened men's hearts, as that eventful, richly laden and profitable life swept on too fast, alas! through the scenes of earth, and was lost to human sight, to the grief and regrets of those who knew him. This rushing onward of his life was seen in his preparation for, and fulfilment of, the duties of a lawyer and of a member of Parliament. "In the second Parliament he was elected a member for the division of Graaff-Reinet, and of his Parliamentary success it is unnecessary for us to speak. The views he adopted there were in harmonious keeping with the previous professions of his whole life, and he expressed them with an independence of spirit and a power of speech which his keenest opponents were the first to acknowledge." \*

"He bestowed great pains in forming and enunciating his opinions on any measures submitted to the consideration of Parliament; his opinions were always listened to attentively, as those of a man not content with hastily-formed or hastily-expressed judgments. He was known by the earnest and persistent advocacy of Responsible Government. With many others, he considered a community without some recognized embodiment of its policy, lacked one of its

chief elements of strength and interest."\*

"Meanwhile, however, and indeed for several years before, he had in private been devoting all his available spare time to the study of the law as a profession. Here his classical training under the Rev. E. Judge proved of signal service to him, as no doubt did the assistance of that most accomplished of jurists, his brother, Mr. Justice Watermeyer. Mainly, then, by his own private studies, though partly by his subsequent attendance on the lectures of the Law Professor, President Brand, he acquired a knowledge of the profession in all its branches which not merely enabled him to pass with signal credit an examination before Judges Bell and Cloete, but fitted him at once for an appearance in the Supreme Court, of which thenceforth he became a most distinguished ornament."\*

"The advantages which many others of his competitors have enjoyed have not been his. It had not fallen to his lot to be able to benefit by an education in Europe, or even personally to visit that country; yet he has shown pre-eminently what a native of South Africa, and one who never left it, may achieve. He had not even had that leisure which seems generally the first requisite for deeper studies such as that of the Law, but while always over head and ears in business, fighting for his existence, and gaining a livelihood for his family, he yet managed by dint of application, together with an admirable use of the great talents with which nature had endowed him, to prepare himself so well as to pass with great praise as the first barrister who was admitted by our Colonial Board of Examiners, and in one of the first cases entrusted to him, we mean that of ' Long versus the Bishop of Cape Town,' his pleading was so well conducted, and such was the ability of his argument, as to draw forth the high honour of a complimentary notice by the Lords of the Privy Council."\*

Another wrote:—"Mr. Fred. Watermeyer was perhaps best known and appreciated as an advocate in the Supreme Court. His successful career had been marked with peculiar interest and pride

<sup>&</sup>quot; Vide S. A. Advertiser and Mail, Argus, and Volksblad.

by the colonists, since it was the first-truits of a measure by which the Government admitted to the Bar candidates who passed a colonial examination; Mr. Watermeyer had never received any education except that which the Colony could furnish, and yet it is generally admitted that he was a first-rate lawyer and a most successful advocate. Every step which the Colony makes in the direction of independent educational life ought to be marked with no common interest, and those who so ably illustrate its capabilities will leave a name the colonists will remember with gratitude and pride. Watermeyer was distinguished by his profound knowledge of the law and his perfect mastery of the cases intrusted to his care. No client could complain that his advocate was satisfied with a hurried glance at his brief or that he had failed to grasp the most intricate ramification of his suit; with a somewhat hesitating utterance, he yet contrived to enunciate his meaning and expound the doctrines of law with great force and clearness. The Bar of a Colony with a sparse population can never offer many inducements to men of real power, and can ill afford to lose a member who did them so much honour. Nor was his integrity and conscientiousness less valued than his legal acumen. Such lawyers as Mr. Watermeyer increase the confidence of the people in a class to whom most serious issues are committed and whose probity and honour cannot be too seriously guarded." Many considered that he had won a position second only to the Hon. W. Porter, between whom and the two brothers there existed a warm friendship, founded on mutual esteem, and on their part an enthusiastic admiration for the brilliant talents and high moral character of their senior.

"His next preferment was to the Professorship of Law in the South African College Council, and though his tenure of it was unhappily too brief, even in those few months he gave abundant indication of the service which, had his life been spared, in that

capacity he was so well qualified to render to his country."

"His mind was just of that order to make him an able teacher. His habits of careful investigation and exposition were just such as students value and appreciate. But better perhaps than all, he had earnest sympathy with every liberal and true-hearted movement in the country. He was no cynical critic of the motives and movements of mankind, but a real believer in the possibility of political

and social progress."

"But in the comparative youth of thirty-six, in the prime of life and the blossom rather than the fully developed fruit of his intellectual endowments,—while a new profession had been opened to him, and there was not merely a prospect but an assured certainty of brilliant success,—while to his family, to his friends and to society his life was invaluable—he was taken away and fell as many a noble and gifted man before, a victim of overstrained effort and of a principle of honour so high and chivalrous that to some it seemed even an approach to positive morbidness. Young as he was, in the last

sixteen of his thirty-six years he condensed an amount of accomplished work and of astounding success such as few can attain to in the most protracted lifetime." "Such was the position and such were the brilliant prospects of Mr. Watermeyer when unforeseen calamities befell him which there can be no doubt hastened his death. It is sufficient to say that while from an excess of confidence he accepted pecuniary liabilities not his own, from an excess of honour he resolved to sustain them and work them out to the last

"When," writes one, "this second great disaster of his life came upon him, he had just succeeded in clearing himself from former liabilities not his own and seemed to be entering on a full tide of brilliant success. This was his death-blow: he struggled manfully for two years more, growing weaker and weaker, though determined to conquer, till at last he yielded in a submissive childlike spirit that was quite pathetic, and seemed in the last three weeks to lay aside all earthly cares and anxieties—calmly resting on the merits of his Saviour and rejoicing in the saying of Augustine, 'Thou hast made us for Thyself, O Lord, and our souls are restless till they find rest in Thee.'" Into the perfection of that rest, God's rest, he entered on the quiet Sabbath evening of the 28th August, 1864, and "mor-

tality was swallowed up of Life."

farthing."

Imperfect as this sketch is, it would be still more defective did it not refer somewhat to the inner life of principle, of faith, and of aspiration which exalted his thoughts, swayed his actions and consecrated his efforts. We have pointed you to his unflagging industry, his literary tastes, his manliness, his charity, his indomitable perseverance, and his generous disposition; we wish you to note more fully his strict honesty, his self sacrificing integrity, his noble conscientiousness, his manly fulfilment of all claims on him. He, not twenty years of age, was not legally bound to meet the pecuniary difficulties into which his father had unfortunately fallen; he had surely enough to do to keep his mother, his sisters and brothers, from discomfort and want. But nobly did he determine that no one should be a loser, and first alone and then in company with his brothers did he toil and save till all those liabilities, not one of which had he incurred, were fully paid. Is he not a hero who so completely sacrificed his own prospects for absolute truth, and who for years bore in silence and with cheerfulness the cankerworm of all brilliant success, by his efforts to keep any one from loss through his father's misfortunes? Most strange and mysterious it seemed that no sooner had he fulfilled these obligations than through excess of confidence and incautious generosity he should sign his name as security for another, and thus accept pecuniary liabilities not his own and be overwhelmed with his responsibility to fulfil them, and then resolve to work them out to the last farthing. It was the effort to meet all these new liabilities fully that led him to toil so continually that he sank in the attempt.

While some might say that he went beyond what was right or called for, let us hear the true aspect in which Archdeacon Thomas presented it.\* While he warned men against taxing the powers of body and mind to the uttermost, he said: - "There is a point far beyond. It is the not only owning, 'my act I see was wrong, although the reasons for it seemed so plausible'; but, 'I accept the burden which has followed in all its terrible consequences. I will not avail myself of any technical relief which the law would give me; I will work to the last hour of my life in order that others may be spared. Whatever it may seem to my friends, yet to myself it is so plain that every moment belongs to others that I will take no rest day nor night.' Now it may not have been difficult for some lookers on in such a case to feel that work carried past a certain boundary must defeat its ends and become a kind of suicide, and for others that it was an unnecessary taxing of the comfort and the rest which might fairly be his. Few can tell, perhaps, the weight which all such arguments would have upon a frame spent with anxiety and worn out with a struggle felt to be hopeless. But see the lesson which lies at the core of all this, and it is because it is of such unspeakable importance for us to realize it, that at the risk of trespassing upon the sanctity of private and domestic affliction, I have ventured to claim the history as our own; the living must lay it to heart. The history then seems to speak to us in some such way as this:-Here is one who was thoroughly open to the allurements of ambitionto the fair rewards of work-to the happiness and comfort of life, as such are usually reckoned, - to all that money might eventually bring,-who yet deliberately sacrificed all chance of their ever being his, because he will at all hazards keep a conscience void of offence both towards God and towards man. We may call the mode of working out the principle shortsighted, but those who have the thing are unspeakably blessed, they are foremost among those whom Christ loves, they are very few, one in a thousand: whenever you know such a man, or have such a friend treasure him, for his price is above rubies." Such pleas for commercial morality and such a noble example of unflinching faithfulness to principle ought to influence the life of us all in our land and in our day.

Let us once more reverentially lift the veil of that inner life that as we have seen the light of principle, we may feel the glow of love, of faith and of aspiration from the heart, the holy place of this earnest man. Christian faith was with him no mere name, but a power influencing his whole intensely earnest life, "which was so full of action, business, and study that there seemed scarce room for the more devotional expressions of religion, and yet it was both penetrated by its spirit and strengthened by its power, and was at its close consoled and comforted by his simple child-like faith in God. Every one

Sermon delivered in St. Paul's, Rondebosch, 4th September, 1864.

who knew him loved him, even those who differed from him; his manner to all was so genial and kindly; unsuspicious in temperament, and having an unbounded confidence in the goodness of human nature with a remarkable absence of any of that pride which makes some men distant in their demeanour to those who might be considered their inferiors."

The strong love and sympathy between the two brothers,—the judge and the advocate,—are referred to in the memoir of the judge, and is here briefly referred to by the younger brother: "My brother Ben and I were chiefly brought up together, and I have learned to feel towards him as to scarcely another being in creation. If he remained my only friend, I yet would have much cause for thanks. The interest and affection I feel in his wife therefore you may readily conceive. I shall bitterly fail in comparison with my brother when you know him better, and I shall probably but respect him the more for that failure. I love all the other members of my family, they seek for modes of opening on me the abundance of their affection, and if I loved them not, I should be the most fallen of the ungrateful creatures of the earth. They are the more immediate, the present objects of the love our religion teaches us to entertain for all human kind."

Writing of Wordsworth's "Ode on the intimations of immortality from the recollections of early childhood," he quotes the lines:—

"Our birth is but a sleep and a forgetting;
The soul that rises with us—our life's star—
Hath had elsewhere its setting,
And cometh from afar."

And he observes:—"This is of something nobler than the existence of our ancestors on this earthball; 'the soul that riseth in us;—our life's star'—our own better self—is the recognition the Poet urges; the Eternity within us, namely, the Divine impression which elevates us above all we are in creation, which has accompanied us hither and which is to follow us beyond the grave, or, rather,

to bring us there."

Mr. Watermeyer rejoiced more and more in the restful sense of the nearness of Heaven and of the abiding presence of God with him. Looking at different dates of this busy life, in 1851, 1857, and 1864, we shall find the truths of the Christian religion his hope and his strength. He wrote in 1851, "I came home from school and learned from my father the respectful attention due to the religious feelings of others and those views of the universality of God's sympathy with man, and of Christ's love to the human race which form the basis of my faith. This basis must be independent of all that is formal, all that is merely earthly." In reference to the fear expressed by some friends that he was indifferent to religion, he writes, "What is the truth? I am only careless of the matters on which they affix a most needless value in my opinion. Although

this opinion even is one which I ought scarcely to express to them, lest I should do hurt to their feelings. They may attach an unusual value to certain forms and conscientiously believe that they are right in so doing. I shall not say that I am tolerant of their views, for I have no business to exercise any toleration in the matter. They don't ask me to be tolerant. They have a right to insist that I shall feel my own fallibility and that I shall view their opinions with the most respectful deference. Shall I judge them otherwise than I may be judged of them? The associations of education generally attach value to many things which ought scarcely to influence us as much as they do. Hence much sectarianism and much attachment of importance to what is merely formal. This is the history of most men's religious views. And there is a formalism of non-formality quite as bigoted as any reverse feeling. Men attach unnecessary importance to what does not belong to the spiritual worship of God, Men have chosen to consider themselves less worthy of freedom (from forms) than God has thought them, and have done their best to retain at all hazards some links of the chain by which they had formerly been galled. That man in whom divine influences have their fullest hold is he who through all stages of life can retain in his mind the constant knowledge of the Presence of God. This is the highest effort that can be conceived of man's intellect in its noblest sense. Men are required to know not to see God's presence with them and their intellectual faculties should possess Him, not the senses by which they are used to appropriate things outward; the lightning and tempest are great manifestations of His presence in the physical world, but it is in the still small voice, holding gentle communion with the spirit of man, that He clearly reveals Himself to the Christian-reassuring him in doubt, confirming his faith, strengthening him in weakness, raising him from the very depths of misery and despair. I seek that these thoughts may influence me and strengthen me to the performance of much duty which sometimes weighs most heavily

Again in 1857 he writes:—"We don't know with any certainty that the man in the Old Testainent who talked as if it were a little thing of, 'What doth the Lord require of Thee,' was himself a very shining light to others; but he put the instruction in such words as if it were but a trifle that was wanted, only, Love to man and Love to God—only to do justice, love mercy, and walk humbly with thy God. A principle to be as constant and complete in its operation in that Kingdom which each man and woman carry about with them as gravitation in the Kingdom of Nature. Else there is disease and not health—corruption and not beauty—death and not life. How the Almighty in His administration of human affairs has brought to bear upon this constant presence of disease and corruption the glorious conception of a Mediator and His atonement it may be difficult for us to conceive. But why some intervention should have been made by a Being so good and so great

will startle none. Some fountain for the uncleanness there must be, or else as surely as the tainted body is only delayed a little from the churchyard, do what physicians can, so certainly would our other better self but hurry on to another death only checked awhile every now and then by that little of the *Deus in nobis* of which the ancients used to boast, and which doubtless does seem sometimes to come naturally to the surface. Nothing short of the New Testa-

ment can cure the consumption of the soul." In 1864, during the last few hours of his earthly life, he said to his brother, the Judge, "God is so very near us, -in all we say and think and do, and now it seems strange to me, that in our ordinary life we do not appreciate His close presence. He is always so very I know clearly now what it is to have faith -perfect trust in God. Much that was mysterious is quite plain and simple now. I see my path clearly before me. I am satisfied that a dutiful trust in God and our Saviour Jesus Christ will not be-nay in the nature of God's Providence cannot be-disappointed. The promises of God are fulfilled—the fulfilment of the promise comes first and then the understanding of them. I now know truly the meaning of regenerate. It is not reading or study that could give this, it is another power. Christianity is not always theological Christianity. I see now the relation of the great God of the universe to man His representative in this part of the universe plainly, clearly, perhaps. Ben, I may yet have an opportunity of speaking to you of these great things. I may tell you what is not mystery now."

Thus passed away Frederick S. Watermeyer, "Advocate of the Supreme Court and Professor of Law in the South African College, a man of high intellectual attainments and eminent professional ability, most affectionately regarded and esteemed for the benevolence of his heart and entire devotedness to his friends and his

country."

Only three years afterwards, his beloved brother, the Judge, dictated from his deathbed these beautiful and pathetic words to the widow :- "I did not write to you by the last mail; I did not suppose when it left England that I should be so utterly incapable of writing at all. God bless you and Fred's dear children. I had hoped to live for them, as I know he would have lived for mine in a like case. We cannot understand these strange and marvellous dispensations. To follow my dear wife and your dear husband so shortly after they have been called away and with what they possessed—a power apparently of still doing some good in this world, is a mystery we cannot understand and yet we know that where we go, there is everywhere work to do, whatever may be selected by the Alldoing as the place where the work is to be done. Remember what dear Fred said how always and everywhere we are quite close to God and God is quite close to us - that He is not simply the great unfamiliar object to be dreaded and feared, and whose presence is to terrify; but that His close, familiar, yet awful Presence is affectionate and loving beyond any conception we may have in our mortal knowledge of being loving and affectionate. Your position as a widow with six children is one of most serious responsibility, but one which by God's mercy you can and you will fulfil. God bless you and them with His most precious blessings in allowing you and them worthily to do some portion of His work upon earth—for that can be done in all positions, whether the positions of your children be what on earth is called success or what is supposed to be sometimes misfortune. Depend upon it misfortune or success lie between man and His God and there only, and is proved to exist by man's conduct towards his fellow man in imitation of what he can conceive his God's conduct to be were He 2 man. Let me say again, God bless you all, I can say nothing more; of one thing beware—never murmur."

These were Judge Watermeyer's last comforting words and loving counsel to his brother's family. Both the brothers were taken up to larger spheres of noble life at a time when, though they had achieved so much, it seemed as if there was so much more for those promising lives to do for their native land, to God's glory, and for man's welfare,—the Judge dying at forty-two years of age, and Advocate Fred. Watermeyer at thirty-six, leaving us to try and imagine what twenty-five more years of such life-work would have accomplished; but our regrets for such short-lived and successful careers are soothed with the larger hope of the eternal world, and we sing with the Poet:

"Thy leaf has perished in the green, And while we breathe beneath the sun The world which credits what is done Is cold to all that might have been.

So here shall silence guard thy fame, But somewhere out of human view Whate'er thy hands are set to do Is wrought with tumult of acclaim.

Eternal process moving on From state to state the spirit walks, And these are but the shattered stalks, Or ruined chrysalis of one.

Nor blame I death because he bare
The use of virtue out of earth,
I know, transplanted human worth
Will bloom to profit, otherwhere."

W. B. P.

The forget-me-not.

Drifting adown life's rapid stream,
And musing on man's lot,
Methought, upon the wave-worn bank,
Bloomed a Forget-me-not.

Quickly I drew me to the shore,
And culled the little flower.
Ah! ever in my mem'ry lives
The rapture of that hour.

But soon the sweet blue pass'd away,
Too swiftly fled my dream;
And now my bark drifts slowly on,
Down the dark, lonely stream.

Only above a soft light shines,
And whispers to my heart—
Place not thy love on aught below
From which thou soon must part;

Nor weep thou o'er thy faded flower!

It has but passed on high.

The tender blue thou deemest lost,

Beams on thee from the sky.

Then pray to Him, who reigns above,
That when this life is o'er,
Thou safe may'st find thy flow'ret sweet
Blooming on heaven's fair shore.

# From Fort Pelly to Winnepeg.

By H. L. ALLEN.

#### III.

For how long I dropped off to sleep I know not, but I suddenly woke with a start, and, looking round, perceived that my companions, wrapped round in their blankets, were fast asleep. Scarcely awake, I tried to move, and as I did so, suddenly felt a pain in my left knee as if all the bones and muscles were being crushed to pieces. The fact was I had fallen asleep without taking proper care that I had left no part of my body exposed to the cold, and my unfortunate left knee was peeping out from the side of the rugs. Some years ago it was my bad luck to be "cannoned against" by another rider, when coming into the straight on a race-course, and I remember that the pain on that occasion was no joke, but in all my life before I had never suffered such agony as this. I managed to drag myself up, throw some more wood on the fire, and then, aching in every joint, laid myself down again. There is a well-known story of a bereaved husband of miserly habits being applied to for alcoholic refreshments by the two mutes who, in their trappings of woe, were standing outside his street door to give due solemnity to the funeral of his wife. "It is so cold out here," pleaded the sable-coated functionaries. "Is it?" replied the bereaved one, "then jump about and warm yourselves." It may be asked why did not I jump about and warm myself? Reader, you can take my word for it, if you like, that "jumping about" is not compatible with the thermometer at many degrees below zero. As I have said, back to my comfortless couch I went, having as I thought taken all precautions to secure a good Through one little chink of my buffalo robe I could see the stars shining with a brilliancy unknown in other regions: all around reigned the most profound silence, save that an occasional breath of wind moved with an almost metallic ring the leaves on the trees near us. I know not why, perhaps from the very contrast, my thoughts went back to the old days of long ago before my wanderings ever commenced; a rough time might possibly be before me, but

> Eyes may be darkened, while visions are bright, Senses be fettered, though fancy is free;

and in a few moments I was in imagination again in the throng and crush of the London season, or skimming along in a yacht in the Solent. However, my idle dreams did not last long, for I awoke with the firm conviction that somebody was breaking my back with a sledge hammer. I got up again, put more wood on the fire, wrapped my rugs still closer round me, but, alas! I could get no more sleep. I had got cold in the early part of the night, and cold I remained despite

all I could do, until, with the first glimmer of dawn my companions aroused themselves, we had our tea and damper and started on our journey again. We travelled with the same intervals of rest as on the previous day; and by evening we had arived at the Shoal River, crossed it, and camped on the far side, having good water and fuel close at hand. That night I profited by previous experience, and by taking care not to get cold before going to sleep, I slept comfortable

through the night. On starting the next morning we travelled a little faster than on the previous day, having made up our minds, if possible, to arrive before evening at the Shoal Lake, outpost of the mounted Night, however, came on when we were some miles distant from the latter place, so turning our steps towards a little wood near the track we determined to encamp. And here an incident occurred which very nearly led to a serious misunderstanding between myself and my companions. Although I had seven blankets and a buffalo robe, still they were none too many, and I was rather put to it the first night to make a sufficiently comfortable pillow. happy thought struck me. I carried my provisions in a sack, some tea tied up in one corner, some lump sugar in the other, and a piece of bacon—a very great luxury—occupying the rest of the sack. In addition to this sack I had by the way a bag containing forty pounds of flour and a small bag of pemmican. Now the sack containing the tea and bacon was an object of general admiration and envy to my companions who, utterly reckless, would, if allowed, have used the whole lot in one day and then contentedly starved for the rest of the time. This sack I therefore had always put at the head of my couch, doubling a blanket over it for a pillow, thus combining convenience and security. However, when I awoke on the morning following this particular night, my "pillow" to my dismay had gone from under my head. "Where's my sack?" I roared out to the old half-breed in the French patois that he used. "The foxes have stolen it, I think," was the calm reply. Now I think it was pardonable on my part to feel a bit "riled" at this. "Don't tell me any lies, you have stolen it," I answered, not half liking the situation, but determined as I had a shooting-iron to be first in the fray if needful. By this time the others had come up, and a hubbub and row ensued of which I did not understand half. None of the men wanted for pluck, and besides that the odds were four to one against me. The row, however, ended by the Indian boy walking off quietly into the bush and returning with the "pillow," or rather the remains of it, in his hand. The state of it convinced me of the truth of the old man's statement. The bag was bitten through, the bacon. taken out, but the sugar and tea were neither of them touched. the matter to my great delight ended amicably.

By midday we arrived at the outpost of the mounted polece. This force is modelled on that of an English dragoon regiment. The uniform consisting of a scarlet tunic, white pantaloons, and black

cavalry boots. They are well mounted and armed, and make a most creditable appearance on parade. Here we stopped for an hour or so, and then proceeded as fast as we could, for each day we expected the snow to fall. Passing the lower end of Shoal Lake some geese, which must have delayed some time behind their other companions, came in sight, and the old man and myself each managed to secure a bird, so that on camping that night we had a most glorious repast. The next morning I awoke feeling very ill. I had rheumatism in every joint and painful swellings in the glands. The motion of the cart was almost intolerable, and walking was out of the question. bitterly cold wind was blowing, which seemed to deaden altogether one's faculties and energy. Towards evening the old man, who was in the leading cart, stopped, and had a conversation with the others in the rear, which ended in their all getting their axes and walking off to a bush near by, whence they returned each with a bundle of wood which they placed in their carts, and I then learnt that the place we were going to camp at for the night had water but no wood. This was very bad news, for the small quantity of wood that we took with us would in such cold weather last but a very little time. We got at last to the pool, alongside of which we had to pass the night. Determined, if possible, to secure some sleep, I turned in immediately after I had had my tea. But in about two hours afterwards I woke up with every joint on rack from the cold, and for the remainder of the night I had to lie awake. It was the longest night that I ever remember, waiting and watching for the dawn. At last the grey glimmer in the East proclaimed the return of day, and it did not take us long to get under weigh again. We had no fire to boil our kettle with, and our dampers were frozen like stones, so we got what consolation we could out of a pipe of tobacco.

Before we halted for breakfast, one of the oxen was discovered to have his feet "worn through" as it is termed. There was little chance of anyone coming along our track before the succeeding spring had made the roads again passable for wheels, so the cart was "cachéd" in a neighbouring copse, the ox himself was attached to the back of my cart, and, half led half pulled along, followed in the Terrible work it was; my unfortunate pony, dead beat as it was, had quite enough to do without pulling along the ox; but my cart had the lightest load of the lot, and it would have been selfish to have remonstrated under these circumstances, for around us like the shadow of a great calamity rose, with its edges standing out sharp against the sky, the cloud which at any moment might cover the surface of the earth with snow and leave us to a miserable death, for we never could have reached our destination if once that snowstorm had commenced. Tired and half frozen, it was some consolation to arrive at a little wood, in the middle of which was a clearing, where we made a tremendous fire, and, protected from the wind, we laid

The next day we got to Musk-kat Creek, and starting as usual at

ourselves down and enjoyed a well earned repose.

daybreak I learnt with joy that another forty-eight hours would bring us to the old half-breed's home at a place called White Horse Plain, thirty miles from Winnepeg. At last my journey seemed drawing near its first stage of fulfilment, and the old pony seemed evidently of the same opinion, as he tried to crawl along a little faster than hitherto, and even the poor tired ox no longer hung back at the tail of the cart.

#### IV.

The next night we camped alongside a muskeg, where we obtained plenty of wood and water. All our stock of flour was, however, gone, and we thought we should have to content ourselves with pemmican only for our evening meal. Suddenly, however, I saw that the bushes behind me were pushed aside, and two women came out and stood still in the firelight. One of them was about twenty, I should imagine, no doubt not pure blood on either side; but I do not think in all my life that I ever saw a more lovely creature. With that exquisite air of repose about her that one can see quite as often among the Indian women as among the grander dames of society, but that one may look for in vain elsewhere, there was, nevertheless, in her face a look of sad resignation which was pitiful to behold. Her companion-a much older woman-addressed herself at once to the old half-breed, who was as usual fussing and grunting about the fire. But the girl came straight up to me, looked right down into my eyes in a way which made my heart jump up into my mouth, and in a low soft trembling voice, began a long story how that she and her mother had come to us to ask for a little tea and sugar and some "pain-killer," a sort of chlorodyne. She had a sister in a little lodge hard by lying ill, and they had no food. At least I believe that that was what she said, but I freely confess that my presence of mind was clean gone, and I felt that other women besides the daughter of Herodias had caused men to lose their heads. I had but a very little tea and sugar and very little chlorodyne, but I believe that if she had asked me for everything that I had I should have given it her at the She had a little bag hanging by her side attached to her dress, and this I was proceeding to fill with tea and sugar when the old half-breed came up to us and pushed-yes, actually pushed-this divine creature nearly into the fire! I was too astonished for the moment to knock him down, and the next minute he broke out with much vigour, "Bête, crapaud, sacripau, what you give all to that girl for nothing? She shall have nothing, no nothing! c'est pour rise, you stupid Englishman, you would give her everything." "Ah! wicked, bad girl," he turned round on the girl, who had stood looking at him with an air of dignified contempt, but who, on his addressing her again turned her eyes towards me; "where are the potatoes, you have the potatoes, give me the potatoes?" Potatoes! had the person he was addressing been old and ugly, there might have been

some reason in his request, but to speak of potatoes to her-a second Cléopatra, another Lola Montez-it was too much. "Look here," at last I found breath to say, "I don't want any potatoes. How darc you talk about potatoes? Clear out; by Jove, I'll give her everything-yes everything-and punch your head in the bargain." "Potatocs," yelled the old man, "give me the potatoes first." And stepping gracefully back from the fire, the lovely creature brought out from the shadow of the wood a basket of potatoes (how she reconciled this fact with her story that she and her family were starving I know not, nor do I care). "Now give her little tea and sugar, she no try to cheat any more," said the old man with a chuckle. I gave her the tea and sugar, she took up her basket, shot another killing glance at me, and with a graceful inclination of her head, disappeared into the darkness, leaving me to look very foolish in my own eycs, and to have my sanity strongly suspected by my companions. "Ah, well!" was my consoling thought, as I coiled myself round in the blankets previous to going to sleep, "I did not come off so badly after all. If that woman was in London or Paris, men by the dozen would be found to stake wealth, honour, and all, for her sake, to find out in the end that they had sacrificed everything to gain very much

less than-half-a-dozen potatoes."

Our journey was now drawing to a close. Gladly enough did we rouse up the next morning and set the train in motion. After travelling for a few miles we got upon a track which was a macadamized road compared to the one that we had lately traversed. Our sick ox had been left at the lodge where my lovely friend of the previous evening resided, and so old Rouge, as good an old bit of horse-flesh as ever looked through a bridle, had no additional load to drag, and stepped cheerily along behind the leading cart on the road to the half-breed's lodge. After such a rough time of it in the open air any place with a roof on it would seem to me, I thought, a paradise. Alas! my anticipations were not to be realized, and my last night on the journey was destined to be worse than the first. It was dark when we turned off the well-beaten road into a track that led to the half-breed's house, and as we left the highway the ponies seemed instinctively to quicken their pace. Passing through a little wood we came to the banks of the Red River or one of its tributaries, and there, perched on what we should call a kranz in this country, stood the half-breed's house, a long low log-hut, consisting of one room. As we came up to the door, an aged woman came out and went up to the oldest of my companions. "Too late, too late," she said, "my father is dead;" and then with that air of true dignity and good breeding which all Indians possess, she turned round to me and told me to enter the house. I must confess that I made my entrance under most embarrassing circumstances. The old woman whose father had just died was evidently the wife of the old half-breed. There were two other women in the room, the wives of the two sons-in law, five or six children, and two younger sons of the old

man. Over all seemed to hang the shadow of a great grief, though out of courtesy to me all outward signs were repressed. It was sad that these men, after three or four months' toilsome wanderings, should return to a house of mourning, and for myself I wished many times over that I was out in the cold instead of inside the house. One of the younger women presently arose and began to prepare an evening meal for us, of which I gladly partook. I was so tired out that I asked one of the boys to fetch my robes and rugs from the cart outside, and straightway I threw them down into an unoccupied corner, and went to sleep. But I soon was awakened by the attack of unmentionable insects which seemed literally to swarm in the room. There in this mixed company I had to pass a sleepless night; and without going into details, it is enough to say that every moment I wished myself outside the door, but it was impossible to move without running the risk of stepping on to the prostrate bodies which lay around me. After breakfast the next morning I bid farewell to my companions, distributing among them the coats and blankets which I had used on the journey, but which would be simply an incumbrance to me to have carried further, and driving into Winnepeg, managed to catch the last Red River steamer, and, travelling day and night to Montreal, caught the very laststeamer from that port, and on the 27th of last November found myself going up the Mersey to Liverpool. My wanderings finished, until that restlessness which is the penalty that most men pay for foreign travel again urged me forth to wander I know not where.

Sufficient reward will it be to me if these rough notes of travel in a country hitherto little known awaken some slight interest and sympathy on the part of my readers in the fate of the Indian, who, as a distinct branch of the whole human family, is actually ceasing to

exist.

Ah! old friends and comrades! prosecuted, maligned, treacherously massacred, dying out, fighting hard to the last, well will it be for proselytizing Christians who are shocked at your adhering to your own grand simple faith in the Maniton, and for pseudo-philosophers who gabble about "the survival of the fittest," if to them at some future day no harsher judgment is meted out than to yourselves. In that day will the cause of the weak be judged against the strong. When both those who are carried triumphantly forward by the tide of civilization and those who have sunk, swept down by its waves, shall each alike, murderer and victim, betrayer and betrayed, in the end

. . . Float on with the silent stream, Float out to the silent sea, Where the soul wakes up from a restless dream, In the hush of Eternity.

### Echoes.

At dawn, across the dim, far-reaching, plain,
There came a low, and solemn cry.
Sadly it came, borne on the down-drooped wings of a slow-creeping wind.

But as it nearer drew, it seem'd to swell, and rise on high, As tho' it fain would reach the blue, high-vaulted sky, And rend from it the sympathy on earth it ne'er could find.

Then falling sudden, downward, smote again
The bosom of that mighty rock,
Which towering guards our shore;
And, from his inmost echoes, tore
An answering cry of death, and pain.
It seem'd as tho' the air were rent in twain!
Methought the earth reeled with the shock.
The eastern sky burst into crimson flame,
While, rising slow, the world's bright monarch came,
And over all fell peace, like soft-descending rain.

As in our dreams we vainly seek to grasp
Aërial forms which, beauteous, seem to glide
Within the reach, and when we fain would clasp
Them to our breast, lo! they have passed aside
Like vapour vanishing. Such is the voice I hear.
The words ring out distinct and clear;
Their meaning veiled from my soul. But, evermore,
Like moaning waves upon a lone sea shore,
They sound upon my ear.

# The Music of the Kuture. BY CHARLES THORPE.

WITH the end of the sixteenth century came that also of the Dutch or Belgian ascendency in Italy; coincident with the death of Roland de Lattre. The carcer of this great master (better known as Orlando Lasso). the author of more than 2,000 works, formed a worthy climax to that of the long line of composers of the contrapuntal school, then about to be replaced by a style at once more beautiful, emotional, and-unless Wagner's prophecies prove true-enduring; because more fitted to display that duality of mind and matter which, as an embodied spirituality, constitutes true art.

The period in question is memorable; and not alone from an art point of view; for it was pregnant with multitudinous changes, politically and socially, to the whole of Europe. Among these may be named not only the Renaissance in Art but the Reformation in Religion; the latter accompanied by an incident which, as it marks the period when actively commenced perhaps the greatest revolution the art of music has known—the initiation of the distinction between the ancient and modern styles of composition—may here pardonably be referred to. The massacre of the Huguenots induced many, escaping from a similar fate, to emigrate; some became Cape colonists, although their descendants have not all continued to pursue the occupations by which their forefathers obtained a worldwide celebrity; most possibly from causes beyond their control. The guilty monarch who assisted in the carnage of St. Bartholomew's day endeavoured, it is said, to atone for his share in the crime, by calling in the aid of the musician just referred to, -the last and greatest master of a school which had for two hundred years been the centre from which originated the musical culture of Europe. Charles IX (says Thibaut) "in order to obtain rest for his soul," prevailed on Di Lasso to write for him the Seven Penitential Psalms. Sir J. Hawkins adds, that the king who "was wont to have his sleep disturbed by nightly horrors, and thus sought to heal a wounded conscience." Lasso died in 1595, and with that event commenced "the musical decline and fall of the Netherlands."

The spirit of unrest which had swept like a hurricane over civilization brought in its train other influences of a less baneful though still sub-The Renaissance—a general movement in Western versive character. Europe aiming at the restoration of learning and the arts as practised in the best period of ancient Greece-seems, as far as music is concerned, to have been originated in a great measure by a society of literati and musicians in Florence. Among the arts destined to receive "a new birth" was that of music. But the difficulties to be encountered in this department of art were of a special kind. If Canova and Thorwalsden were enabled to revive the Grecian style in statuary, they had specimens of Greek art with which to compare their productions; but of Greek music none remained, if we except the few fragments\* which

<sup>\*</sup> The three hymns to Calliope, Apollo and Nemesis, first published by V. Galileo (Dial: del: mus: 1581) are thought to date between A.D. 200 and 400. The attempted translation of Dr. Burney (vol. 1. p. 86) is so unrhythmical that it cannot possibly be the true one. Others have failed from want of sufficient data. While the fragment of Pindar's Ode, in Kircher's Musurgia is in the same predicament as Macpherson's "Poems of Ossian"- the original MS, has never been found,

have hitherto proved practically undecipherable. The society, however, met this difficulty by propounding certain rules, among which was one demanding "distinct individuality of expression and clear intelligibility of the words to be sung." That the madrigal (or polyphonous) style was incapable of effecting this had been already demonstrated. It was known that on the Grecian stage the words were not so much spoken as intoned; experiments in declamation were now instituted, which ultimately led to the invention of musica parlante, a species of delivery of the words which at first was neither absolute singing, nor of such uncertain intonation as speaking tones. In a word, the dialogue being recited, "sometimes in measure, sometimes without," the result was,-that which forms a great and essential feature in the musical drama of the present time, and still more in that of the "music of the future" school,—the Recitative. These enthusiastic reformers need not. however, have reverted to ancient Greece for this suggestion, as the intoning of the ritual had been employed in the church since the time of S. Ambrose and Gregory the Great; and they must be accredited with at least one fundamental error in their new style; for it was demanded of the composer that he should possess "a noble contempt for melody:" while an "almost entire sacrifice of the musical form to distinct enunciation of the words" was another characteristic. Those at all conversant with the principles which dominate the "Romantic School" will see in this another illustration of how history repeats itself; for this is the very root and ground-work of Wagner's proposed system, -- contempt for melody, sacrifice of form,-though without the excuse of these Florentine savants, who were groping their way blindly towards truth in art. But regarding their "distinct individuality of expression," if Wagner ever attains to it, it is by eliminating the rhythmical vocal melody, and substituting recitative; while he adopts the polyphonic form in the instrumental accompaniment; and where this inevitably falls short of the truth, he endeavours to atone for it by the not uncommon resource of splendour of orchestration; thus like Berlioz, "replacing absence of ideality, by enriched colouring."

The outcome of the studies of this Florentine Society was the production of the Lyric Drama, or as it is now usually termed "the Opera," the subsequent history of which includes a series of improvements and developments to which nearly all the great masters of the art have contributed; the salient points of these, however, can only here be noticed. These improvements, such for instance as the refinement in form of melody, by the elder Scarlatti, which Wagner calls "a relapse into paganism," it is now proposed to treat as excrescences, and sweep away into "the limbo of forgotten things;" a symptom that the future of the Musical Drama

threatens to be retrograde rather than progressive.

But the initiators of the Renaissance in music, though unable to accomplish what they proposed, certainly laid the foundation for many things now regarded as essential notably: the union of the science of the schools with the artistic inspirations of the unlearned; the counterpoint of the monk, with the rhythmical tune of the jongleur; or, if an anachronism might be allowed, the learning of Bach with the melody of Rossini; the one supporting, but not absorbing, the other; for hitherto, "monody," i.e., the vocal solo as now conceived, with independent instrumental accompaniment, had rarely, if at all, appeared; and thus "song,"

which constitutes the natural, and therefore true, vehicle for ideal expression, in the dramatic unfolding of individual passions, may at that period be said to have had no existence; and, if we are to believe Wagner, should not exist now; for Rossini's is "naked, absolute, ear-tickling, melody;" and that of Meyerbeer constitutes him "the most despicable music-manufacturer of the period." This is Wagner's deliberate opinion, although Rousseau long since hinted that "ce n'est point

pour entendre du récitatif que l'on va à l' opera."

In the miracle play\* with music—then about to be converted into the Oratorio without scenery—the spoken or intoned dialogue was replaced by the new recitative style of declamation. This recitative, which plays so important a part in the structure of both oratorio and opera, and more especially in the Wagnerian drama, may here, perhaps, claim a few words of explanation as to its functions in the work, and the extent to which it differs from absolute melody. In declamation, e.g., of a Shakspearian tragedy, everything depends on the position of the accent -which, if misplaced, obviously disguises and even destroys the sense of a passage, The same thing occurs also in the recitative; but the speaking tones are more elongated and partake more of the nature of singing than of speech. The composer writes the tones he deems most suitable, but the notes themselves, as to length, are left to the discretion of the singer; and although generally written in square tempo, and barred, there is really no restriction as to time. Of this method of declamation there are several kinds; some being unaccompanied; accompanied at intervals with short chords; or with chords sustained during the declamation to preserve the intonation of the singer; these constitute simple recitative. Another kind includes short phrases for the orchestra, in strict time, between the declamatory passages; in all eases, however, the singer recites ad libitum; the orchestral accompaniment being principally employed to enforce or illustrate, musically, the narrative which occurs in the recitative. This latter kind is recitative accompanied, or obbligato. Where, however, regular phrases are written, or a certain figure is to be preserved in the accompaniment, during the vocal part, it is manifestly impossible to do this, unless something like time is kept. The deelamation in this case assumes more the nature of air, or melody properly so-called, though not necessarily possessing symmetrical phrases. "declaimed air," musically considered, contributes to the filling up of the harmony; while the real melody, when any exists, is given to the orchestral instruments; this constitutes what is now understood as aria parlante, which, in some situations, cannot well be dispensed with, and is, therefore, of importance in contributing to the general dramatic effect. It becomes, however, a matter for grave consideration, whether it is possible to construct the fabric of the opera with this kind of music, as Wagner proposes; trusting to his "infinite melody" to redeem the musical portion of the work from inevitable monotony. The little scraps of tunes in the orchestra, which constitute this "infinite melody," Wagner employs for his "memory contrivance," a principle, which, however ingenious in itself, is, as will presently be seen, not quite so novel as the Abbé Liszt

<sup>\*</sup> A specimen of one of these Miracle Plays or Mysteries of the Gray or Franciscan Friars of Coventry, is in Bibl: Cetton: Vesp: D. viii., Brit: Mus: and copied into Dugdale's Monast: Anglic Vol. 8 p. 1534.

and others contend for; it having been employed in one of the earliest

operas (the "Orfeo" of Monteverde, 1607).

If in recitative, the singer is, so to speak, "master of the situation:" in the rhythmical air or song this predominance becomes to a great extent impracticable, the musical impression being produced by the simultaneous employment of voice and orchestra,—the latter supporting the former, and by well-chosen combinations of instruments, contributing greatly to the general effect. This is as it should be. Unfortunately, however, the abuse of the orchestral resources is by no means uncommon; the voice being not unfrequently drowned by masses of wind instruments: one consequence of which is the ultimate and inevitable destruction of the finest vocal organs; few singers being physically capable of withstanding such constant strain upon the larynx, especially when, in addition to this, the proper employment and capabilities of the human voice are now frequently but little regarded. It is, in fact, generally admitted that Meyerbeer's, Verdi's, and Wagner's operas have been the ruin of many voices. While, as to practicability, the title-rôle in the "Tristan" of Wagner (which opera may be taken to represent the future school), was for a long time considered impossible; "it killed one man; it sent another to the madhouse." That all this is not to be "improved away" by the new school is tolerably evident, if Wagner's early work, "Tannhauser," may be cited as a specimen. In one scene of this, the chorus has to support itself against the screams of twelve trumpets on the stage, in addition to all the string, wind, and percussion instruments of the full orchestra between the stage and the audience.\* Something similar also occurs in "Der Meistersinger," a much later but representative work of the new school.

The vocal solo, which is to be so conspicuously absent in the opera of the future, has been the subject of much discussion, jealousy, feud, and even theatrical riots, amongst singers and their supporters or partizans, from the time almost of its first introduction into the lyric drama. To the unreasonable licence of solo vocalists is to be attributed the protest of Glück, and his reconstruction of the opera on a new plan. It was this, which, in endeavouring to withstand, nearly ruined Handel in mind and in purse. It is also this protest against the caprices of singers which Wagner, wisely, though only following Glück, has again raised; but in which he has become as exacting as were formerly the vocalists, whom he treats as so many instruments, eliminates the aria, the vocal solo on which they have been accustomed to hang their embroideries, and substitutes for it his declamatory monologue supported by "infinite melody," which, vocally considered, many are disposed to regard rather as "infinite ugliness." While not the aria alone, but a great deal more, which rightly or wrongly has been regarded as beautiful, is-if Wagner's theories of the future are to be adopted-no longer to appear as a component part of that combination of the arts known as Grand Opera.

<sup>\*</sup> Wagner's latest work, "Der Ring des Niebelungen," is scored for a total of 114 instruments.

## Tree-planting in the Punjab.

PERHAPS some of the readers of this Magazine may, as tree-planting is now continually advocated at the Cape, be interested in a short account of the management and progress of the Forest Department in India.

The climate and general characteristics of the Punjab much resemble ours. I shall therefore limit my remarks to that Province.

As far back as the year 1851, and only three years after the taking of the Punjab, a Forest Department, which has since developed

into its present magnitude, was set on foot.

On the 20th of February, 1851, at a meeting of the Agri-Horticultural Society, held at Lahore, an interesting Minute on Arboriculture, by the most noble the Marquis of Dalhousie, then Governor-General of India, was read. To show the similarity between that country then and ours now, in regard to the want of trees, I cannot do better than give a few extracts from this admirable Minute:-

"During the last season and the present I have traversed the plains of the Punjab from north to south and from east to west; not indeed visiting every district, but seeing quite enough of its several divisions to enable me to judge of the physical character of the new province by my own personal observation, aided and confirmed by the information I have

sought from the officers stationed throughout its bounds.

"2. There is one characteristic of this wide tract which could not fail to strike the least observant traveller, and which must be the source of constantly recurring regret to any one who looks upon the plains of the Punjab with interest, and with reference to the wants or advantages of its condition. I refer to the almost total absence of forest trees and of even fruit trees, and of bushes, leaving the whole territory one continuous stretch of unrelieved plain, neither adorned by the foliage which is its natural ornament, nor stocked with the timber requisite for a thousand purposes in the every-day life of the people who dwell in it.

"3. This is a manifest, and will be shortly felt to be an increasing, evil unless some measures are taken to provide at present a remedy for the

future.

"4. It is unnecessary to inquire what were the causes which have led to this general want of timber. Whatever may be the cause, it certainly is not to be traced to any natural unfitness of the soil for producing forest and fruit trees in any part of the country which is not actual desert.

"5. While nature appears to me to offer no obstacles on her part to the future supply of this great deficiency, it is, in my judgment, of much importance that the Government should devise some means to that end,

and should bring them into operation without delay.

"6. The deficiency of timber is already severely felt, not only in the large public works about to be undertaken, and in the provisions of cover for the European troops, but in the hardships which it imposes on private individuals by enhancing the cost of the residences, which in this new province they are compelled to build, far beyond what it would be under similar circumstances elsewhere. In the plains as far south as Mooltan every beam which is used is brought from the mountains.

"7. Passing by the consideration of the additional enjoyment which will be given to life by the creation of shady spots near to villages and wells, and of the topes scattcred over the plains as they are generally seen in Hindoostan (although this consideration is not by any means to be disregarded), I feel strongly the urgent duty of endeavouring to give to this country the clothing of forest trees, from my knowledge of the well ascertained and beneficial effect which trees produce on the healthiness and fertility of the tracts in which they are found. No point has been more clearly established than this salubrious and fertilizing effect of foliage in an Indian climate. It has been the subject of much inquiry, and has been affirmed and demonstrated in every report submitted from different parts of India, many of which have passed through my hands, and one of which I forwarded to the local Government in the Punjab some time ago.

"13. Care should be taken that the trees planted should be those which are calculated to become useful timber in time, and which general experience may indicate as suited to the soil. Near to the villages and to the wells the villagers themselves will probably be ready enough to plant mangoes, &c., when their attention is once directed to it.

"14. The supply of plants for these purposes is a matter of detail on which I can give no useful advice or opinion, while ignorant of the facts. Upon it I shall await the information which the Board, on inquiry, may

be able to communicate.

"15. The Government on their part may in their several public works

he labouring to the same end.

"The Barec Doab Canal and all its branches should have its banks carefully planted by the canal officers concurrently with its progress. The district officers connected with the inundation canals in the lower districts of the Punjab should be instructed to introduce the same improvement, commencing at once. On the great lines of road the same may be done by the executive officers with good effect; and wherever a dak bungalow or a public building, or a chokee is crected, there, unless space be

wanting, trees should be planted.

At all of these places trees will not only be refreshing and useful hereafter, but they will have the additional advantage of being looked after at the commencement. It is probable that the men at the chokees, &c., if properly managed, will take pleasure and pride in tending the young plants entrusted to them. If not the care of them should be a part of their duty for which they should be held responsible. There can be nothing in this incompatible with the duties of any man, whatever may be his employment. In like manner, the head men of villages should be made responsible for the protection of the plantations which may be made within their bounds.

"16. It only remains for me, in this outline of a general scheme, to advert to the possibility of ensuring an abundant and cheap supply of fuel near to large stations. At Sealkote, where a large body of troops will be permanently placed, the supply which alone can be relied upon is more

than fifteen miles distant and across the river. It is probable that here, as is the case at Lahore, some of those tracts which have been heretofore used as grass preserves may exist. I would suggest the value of immediately planting some of those at Lahore and any that there may be near Sealkote. The wood to be fitly selected for this purpose should be one which is of quick and spreading growth, and which can be relied upon as of the nature of copse, so that it may be cut for supply with regularity and may be counted upon to reproduce itself within a certain period.

"17. None of us can live to see the complete result of that which we now propose to commence; few of us will gather the fruit where now we plant. But if we succeed in framing this design, and advance it in some degree towards completion, we may at least enjoy the satisfaction of feeling that we shall leave behind us an heritage for which posterity will be grateful.

(Signed) DALHOUSIE.

These measures as suggested were, I need not say, adopted and gone into with the zeal and perseverance which characterized, especially at that time, the Punjab officials. Circulars were sent by the Board of Administration to all Commissioners of Divisions, for their own information, and for distribution among their district officers, desiring co-operation and requesting reports and suggestions.

The first step taken was to line, with a double row of trees, both sides of the Grand Trunk Road, between Googeranwallah and Lahore, a distance of about forty miles, thus providing for pedestrians the luxury of a shady footpath away from dust. These trees now meet over the great highway and form a magnificent avenue. At stages averaging ten miles apart are "encamping grounds," or what in this country are quaintly termed "outspan places." On each of these, generally circling a well or tank, a small area of from four to six acres was enclosed and planted. When these trees could no longer be injured by cattle the enclosures were removed. Thus delightful retreats were provided for travellers wherein to take shelter from the scorching rays of the mid-day sun or deadly night dews. Other roads radiating from Lahore to Mooltan, Ferozepore, and Umritsur, were treated in like manner and with equal success. Now there are few roads in the province unshaded by trees. Stations such as Anarkalli, Googerat, and Ferozepore, twenty-five years ago were, I am told, dusty and treeless. They are now as thickly wooded as Rondebosch and Newlands. All this was done chiefly through the executive engineers in charge of roads, and by district officers. Gradually, however, as public works extended, the demand for timber increased, until it was considered necessary to organize a Forest Department. On a very limited scale at first, it has steadily grown in importance. Now, notwithstanding its enormous yearly planting operations, its revenue exceeds its expenditure.

In the Punjab the Department is divided into three main branches or divisions, with a conservator at its head. They are called,

respectively, the Plantation, Hill Forest, and Fuel Reserve divisions. Each division is managed by one or more deputy-conservators, according to its extent, and under these are assistant-conservators and forest rangers, who have charge of sub-divisions. Then come

foresters, overseers, and watchers.

The head-quarters of the deputy-conservator in charge of the Plantation division are at Lahore. Responsible to him are several assistant-conservators and forest rangers, each managing Plantations of various sizes in different parts of the province. The largest and most important of these is at Chunga Munga, on the line of railway between Lahore and Mooltan. Its intended area, as laid down in the working plan, is to be 20,000 acres. It has now nearly reached that extent. A strip of country two miles wide, with a railway on one side and the Baree Doab Canal on the other; its situation in regard to protection, irrigation, and future transport, could hardly have been better chosen. As with the recently-formed Eucalyptus Fuel Plantation here at Worcester, the primary object was to supply fuel and sleepers to the railway. As, however, the trees seemed to thrive, it was enlarged until a working plan was found necessary. The whole was then surveyed and numbered in blocks and compartments. Less than twenty years ago the part of the country of which I am writing was remarkable for its aridity. It was as bare and sterile as the Karroo. This may be gathered from the fact that the rain fall at Lahore averages ten inches, and three at Mooltan during the year. To those who knew it in its early state, the difference in the appearance of the locality is indeed astounding. A wide stretch of forest, rich in grass, and intersected by broad roads and branching canals; miles of cotton fields, with here and there a maze or cane brake, now refresh the eye and gladden the heart of the astonished and dusty wayfarer, who, until he sees the canal, wonders how a belt of country in a baked wilderness could thus be fertilized. The revenue from the grass within the plantation alone, which is cut and removed by permit-holders, amounts to Rs 5,000 annually.

Water is, of course, a sine quâ non for successful cultivation, and in dry countries, where rain only comes at long intervals, reservoirs and canals are indispensible. The great reservoir which waters the Punjab, and indeed all Northern India, is found in the vast and eternal snow-drifts of the Himalaya. In the hot weather, when all cultivation in the plains would otherwise be parched, the snow melts and fills the rivers. These in their turn fill the canals that carry fertility and plenty wherever they flow. The Baree Doab Canal is fed from the Ravee River, at the foot of the hills near Madapore. After a circuit of two hundred miles, it empties itself into the same river below the Chunga Munga Plantation. In some parts of this Colony water is as scarce as it ever was in the Punjab, and though we have no natural reservoir of snow to tap in summer, there is abundant rain at certain seasons which is allowed to run to waste. Were this stored and dealt with economically

the Karroo, with its rich virgin soil and railway, might not only be planted with trees, but yield large crops of corn for export. To leave such works to private individuals or public bodies is, in this country, to leave them undone for another half-century. The late introduction, by Government, of an experienced Hydraulic Engineer was hailed by all thinking men, who look for the improvement of our country through the development of its own resources, with earnest approbation. In some parts of the Eastern Province, where farmers are continually losing their stock in consequence of long droughts, the storage of water is disgracefully neglected. A stranger zealous in Arboriculture who ventures to suggest the planting of trees as a means to temper the climate, and increase or equalize the rainfall, is smiled upon as a being with verdant ideas who has much to learn. Should he choose to demonstrate his statement by pointing to the statistics of other countries, such as Algeria, the invariable and sapient (?) reply is, "Ah Algeria is not the Cape." Sometimes one hears it said, "Trees will not grow in this district, I have tried it myself." As if that were conclusive. One public body, when discussing the desirableness of a projected plantation, objected to it altogether, on the ground that the trees in time might form a shelter for thieves and vagabonds. How applicable these lines of Tennyson are to us :--

"A sleepy land where under the same wheel The same old rut would deepen year by year."

To return to the Punjab. Besides the plantations like that at Chunga Munga, which are dependent on irrigation, there are "salaba plantations," i.e., plantations on alluvial soil, which do not need artificial watering. These are generally situated on islands amid the

large rivers, or along their banks.

In the low hills, at the base of the Himalaya, are bamboo plantations which are very remunerative. Higher up, at an elevation of from eight to nine thousand feet, we come to plantations of the sacred Cedrus Deodara (tree of God) and Pinus Excelsa. Much is being done to conserve these most valuable forests, which for centuries had been left in the hands of unscrupulous Rajahs, avaricious timber merchants, and charcoal-burners, who, though they count the trees as sacred, seem to have no hesitation in depriving themselves of their presence for the sake of lucre.

Of the hill forests or river divisions there are five, viz: the Sutlej, Beas, Ravee, Chunab, and Jelam divisions, each under a deputy-conservator. The principal business of the forest officers in these divisions is: the conservation of forests that have been overworked; to open up and judiciously thin others that, owing to their inaccessibility, have been overlooked; to construct roads, timber slides, and rafts. These duties which entail much exposure, solitude, and hard work, require considerable energy and activity. To a lover of nature and sport, however, the wild tent life in the mighty primeval forests

among the stupendous snow-clad mountains has an alluring charm: the more after roasting for two hot seasons in the plains. The keen fresh air, the pure water, the quantity of exercise, very soon brace and invigorate the relaxed system. Mosquitos and dyspeptic dreams of an abscessed liver as large as a calabash no longer disturb one's slumbers and render night hideous. In winter, when the snow is not too deep, felling and sawing is busily carried on. The logs are sawn into lengths, marked with the broad arrow, and numbered. They are then conveyed to the river bank by means of slides, and either constructed into rafts or left as they are. In summer the river, swollen by the melted snow, bears them away to the plains. During their voyage they sometimes get jammed among the rapids, and have to be freed by men on "mussuks," an employment accompanied by much danger and frequent casualties. depôts are usually formed if possible near to where the river emerges on to the plains. There the logs are secured by means of ropes. When rolled on shore their numbers are checked, and they are brought into the timber-yard to be sold or sawn into sleepers. In the season of 1872 thirty-six thousand sleepers for the Northern State Railway were floated down from the Beas division in this

The Fuel Reserve or Rakh division is under a deputy-conservator, who, like the deputy-conservator of the Plantation division, has his head-quarters at Lahore. He has charge of the waste Crown Lands in the Province, of which his chief duty is to let the grazing, and regulate the supply of fuel to railways and cantonments. The system adopted is to close or throw open tracts of country in succession every third or fourth year, in order to renovate the jungles and pre-

serve them from becoming exhausted.

What is termed a Forest Conference is annually held at the Forest Club at Lahore. It was instituted by Mr. Baden Powell in 1872, who was then Acting Inspector-General of Forests. Each officer who can spare the time is permitted to come to Lahore, and to remain there while the Conference lasts, at Government expense. He is expected to read a paper regarding the work on which he has been employed during the year, or on any subject connected with Forestry which may contain suggestions or in any way be of service to his confrères. These papers are discussed seriatim and printed. Thus all may profit by each other's experience, and so promote the interests of the Department.

J. STORR LISTER, JR.

## Some Characteristics of our Fellow Colonists.

By the Rev. Professor J. Murray.

A FORMER Governor of this Colony, Sir George Grey, repeatedly and emphatically stated his conviction that South Africa is yet to be a great country. English statesmen of imperial mind, like Lord Carnarvon, seem to share that conviction, and desire to educate the people of this country to a sense of their high destiny, while the charge is not unfrequently brought against us that we are deficient in such large views as others cherish in our behalf. Let us, as seems becoming, accept the well-meant lessons that are offered us—let us prepare for the grand future in store for South Africa.

If our education in this direction is to succeed at all, one thing is certainly indispensable, namely, that the people of this country shall know and understand each other better than they do. Variety of race, of language, of religion, of modes of thought, may become serious barriers in the way of national progress. Anyone, therefore, who teaches the various classes of the community to understand one another, to judge patiently and even appreciatingly of modes of thought seemingly strange or repulsive, is a benefactor to the country

in which he dwells.

It is with views like these that I now wish to speak of some characteristics of our fellow colonists. I desire to present to an Englishspeaking audience in Cape Town the ways of thinking and living types of character found among the remote Dutch-speaking population of South Africa. It can be shown, I think, that the task is not a superfluous one. It is not only the illiterate Dutch farmer of the interior that has the most absurd misconceptions of England and the English. Similar misconceptions of their Dutch-speaking fellow colonists are to be detected even in cultured Englishmen in South Africa. For instance, Mr. Froude† on his voyage to the Cape gets all possible information from fellow passengers with respect to the Boers. A Natal judge tells him that a "Boer's reiigion is like the Kafir Obeah." A strange sentence certainly as coming from one who may be supposed to judge dispassionately, and to be on his guard against founding large generalizations on a very narrow basis of observed fact.

The term Boer is one of wide application in this country. Men who have been at school and have travelled in Europe are not ashamed of the title, while it is borne by numbers who can barely sign their names. Leaving out of view such extremes as this, there is still variety enough in the types represented by the term in question. A careful observer will notice in contiguous districts considerable dis-

† Short Studies on Great Subjects. Third Series, p. 243.

<sup>\*</sup> Address delivered at the Public Library as one of the University Course of Lectures.

similarities. For instance, the Teutonic agriculturist of Malmesbury differs in personal appearance, in dialect, in modes of religious thought, from the Huguenot vine-dresser of Wellington and French Hoek.

Much more obvious are the distinguishing features observed in he uncultivated squatter of the Karroo; the more civilized, but still nomadic, grazier of Calvinia; the half Anglified colonist on the Eastern Frontier; the backwoodsman of the Transvaal, or the hunter of the Limpopo. I shall not attempt to sketch all these and other varying phases of Boer life in their special features; let us for the present be satisfied with a few sketches which do not pretend to give an exhaustive account of the various types that might be described.

Take, in the first instance, the following from one of the interior districts. It is a picture about half a century old, from one of the most readable books of South African travel, now, however, out of print,—African Sketches, by Thomas Pringle, the Poet. The life led in many a remote farm still answers more or less to the descrip-

non.

The traveller is on his way from Graass-Reinet to Cape Town, and relates his experience of a Sneeuwberg farm:—

"The following day we reached the place of Schalk Burger, an affluent grazier, where we spent the night. The house, which was large, substantial, and well furnished, we found full of guests, there being not fewer than eight-and-twenty besides ourselves, all respectable-looking African farmers or travellers, mostly with their wives and children. How they were all accommodated I could not easily guess; but when I made some apology for increasing the number of their visitors, in consequence of the piercing cold which prevented our sleeping in our wagons, the bustling hostess assured me, with a smile, that they had abundance of accommodation and bedding for many more guests. So far as bedding went, this was certainly the case; for, on retiring to rest, I was conducted to a slaapkamer, containing three good curtained bedsteads furnished with two, three, or four feather beds each; but in one of these were already deposited my wife and her sister. Such, indeed, was not unusually the arrangement made for us when we slept (as we sometimes found it necessary to do) in the houses of the Dutch-African colonists during our journey. Even in the best houses in the remote districts, the sleeping apartments are few, and usually contain two or three beds each. In a country where there are no inns, and where universal hospitality prevails, the crowding of one or more entire families into the same bedroom cannot, perhaps, always be avoided, and, from having become customary, appears not even to be regarded as inconvenient. It is a custom which indicates both lack of refinement and great simplicity of manners. A century ago a state of things not very widely dissimilar prevailed in the most respectable farm-houses of Scotland, and still prevails in the cottages of the peasantry.

"We spent the following day with his family, which furnished a pleasing specimen of the Sneeuwberg farmers, a class of men of whom Mr. Barrow, thirty years ago, gave so favourable a report. After breakfast some more company arrived, whom I found to be neighbours and relatives

come to spend the Sunday with our patriarchal host. We were soon after invited to attend their religious service in the hall, round which the whole company were silently seated; and I was glad to see, what I had never witnessed on the Frontier, that the slaves and Hottentots belonging to the household were also freely admitted. After singing some hymns and reading some portions of Scripture, our landlord addressed the company in an exhortation, apparently extempore, of about half an hour in length. It appeared to me very sensible and appropriate, and was listened to with every appearance of devout attention.

"After this becoming service, all the company sat down to a plentiful and cheerful repast, consisting chiefly of stewed meats, according to the Dutch fashion, but very well cooked, and varied with baked fruits, pastry, pickles, and salad in abundance. The spoons and some of the other articles were of silver; the capacious tureens of well-burnished pewter; the plates of china and English delf, with napkins, &c. There was country wine; but glasses were only placed for the men, who drank of

it very moderately; the women not at all.

"I left them in the afternoon, much pleased with the good humour and good sense that seemed to prevail among these rustic inhabitants of the mountains. There was nothing very Arcadian certainly about them, but their appearance was decent and comfortable, and their manners frank, hospitable, and courteous. Notwithstanding the heavy damage occasioned throughout the district by mildew in the crops, and recent violent rains, plenty was apparent everywhere. I afterwards learned, indeed, that our host was one of the wealthiest, and, at the same time, one of the worthiest men and best masters in the Sneeuwberg. 'substance' might have rivalled that of Job and Jacob in their most prosperous days. He possessed eleven plaatsen or farm properties, pastured by 13,000 sheep, and from 2,000 to 3,000 cattle, besides horses, corn, &c. He had only one son, and, notwithstanding his unbounded hospitality, had saved much money; and this, I was told, he generally lent out to his poorer neighbours without interest, it being a maxim with this liberal man that it is 'more profitable to assist one's friends than to hoard money by usury.'

"As an evidence of the simplicity of manners existing among this class of people, I may mention that, notwithstanding the wealth of the family and their numerous coloured servants, Schalk Burger's only son himself drove our wagon with a team of oxen with which his father had furnished me for the next stage, in order to keep my bullocks fresh for the

arduous journey before us."

Thus far Pringle. The inquisitive reader of this pleasing sketch will perhaps inquire, In how far does the picture represent a rare instance of the religious and social virtues here described, or does it apply to a whole class in the community? To this it may be replied that, though Schalk Burger was an eminently favourable specimen of the Dutch Boer, he was by no means a rare one. For instance, in other parts of the great Graaff-Reinet division, more specimens were to be found of the same patriarchal type of character. His own brother Barend was distinguished from others of the same name by the title of Barend Predikant, from his zeal as an exhorter of his

neighbours and his coloured dependants. The primitive style of manners above described prevailed here also. The traveller who claimed a night's hospitality would not only share in the evening meal and the evening devotion, but have his feet washed along with the other male members of the family in the hall by a female slave. He would probably be disturbed in what he thought his midnight slumber by the morning hymn, sung by candle-light. If Pringle noticed the neglect of the Frontier farmers to attend to the spiritual interests of their servants, this could not be laid to the charge of Barend Burger, of Camdeboo. Before his death he secured, by a legal document, the free use of a house on his farm to the widow of a missionary who had itinerated amongst the blacks and whites of the district. Another member of the same family, a man of great local influence, recently deceased, was described by the late Judge Watermeyer as a "nobleman born."

Yet another instance. In the Piquetberg district there is a Moravian missionary station, called *Goedverwacht*, containing a coloured population of about six hundred souls. Its history is the following:—A wealthy farmer of the name of Burger (no near relative of the abovenamed family), a good many years ago, bequeathed one of his farms to his slaves. Of these, the last surviving is a female of eighty years of age, now on the station. At her death, the will of the testator provides that the property is to be sold, and

the proceeds divided among the descendants of his slaves.

You admit the possession of various primitive virtues by the class of men we are describing, but you further inquire, Are they entitled to the term civilized? What mental culture do they possess? To this I must reply, the civilization of Cape Town, which is nourished by the telegraph, the daily newspaper, the weekly steamer from England, and the Public Library is not theirs. Their literature is confined to the Bible and a few books of devotion. Their knowledge of the world at large is derived from a monthly or quarterly visit to the nearest town for the purposes of trade and devotion. Their newspaper is the passing traveller, and especially the smous or hawker, who knows how to suit his goods and himself to their tastes. Where it answers his purpose, he will rail at the English Government, he will praise or censure the neighbouring clergyman and magistrate. If the work of the farm be at a standstill for want of hands, the smous will abuse the missionaries, and urge the farmer to see that patriotic members are sent to Parliament, who shall insist on the passing of stringent vagrant laws, as in the Transvaal. He retails the news from the capital and from the neighbourhood, Boer has thus to fulfil, as he best can, the duties of his higher nature, without the aid of what we consider the indispensable adjuncts of modern civilization. He is not easily stirred by political passion, he lacks the adornments and refinements of literary and æsthetic culture, and yet he has an old-world civilization of his own, which keeps him from sinking into the mere animal. That in many cases, especially in remote tracts, the standard maintained is not so high as in the typical examples above given, need hardly be mentioned.

Let us now take a look at a more distinctly-marked type of Boer character than we have as yet considered, one that may be regarded as interesting from its being specially antique and specially un-English. I allude to that indicated by the term Dopper. Like most party names, this epithet gradually won its way into common use, till its origin became a matter of doubt and dispute. It first appeared in print some thirty years ago, about the time that the village of Burghersdorp was established, and was specially applied to a large part of the farmers inhabiting the Albert division, then, as now, a stronghold of Dopperism. The following is the most probable origin of the name, ridiculous enough, but in keeping with its character as a nickname: - Amongst the old fashions tenaciously maintained by the farmers in question, was that of men wearing the hair combed straight down over the forehead, and smoothly cut away a little above the eyebrows. It was pretended that in order to cut the hair accurately there was held over the head a basin-in Dutch Dop-the edge of which was a guide to the shears of the operator. Hence the term Dopper, now so common in use that it is hardly considered a nickname at all. It has made its appearance even in the London newspapers in connection with the mission of Mr. Paul Kruger to Europe.

What is the distinguishing characteristic of this class of colonial farmers?—An extreme conservatism, a resolution strictly to walk in old paths, to avoid, especially in Church matters, everything new-

fashioned.

Now it might be supposed that similar causes producing similar effects, the Dopper type would be found to prevail in all the more secluded districts inhabited by Dutch farmers, whereas it is limited to certain tracts of country. But let us take some notice of its

history and its more prominent features.

In the early part of this century the ward of Rhenosterberg, between Graaff-Reinet and what was afterwards Colesberg, was inhabited by a number of large families—almost clans—nearly connected by inter-marriages, but showing no tendency to differ specially from their fellow-countrymen. The prominent family names were Van der Walt, Kruger, Venter, and Coetzee. The Van der Walts might in some respects be considered the aristocracy of the district; they were lineal or collateral descendants of the famous Tjaart van der Walt, who fell in defence of the Colony in the year 1802. Here let us pause for a moment to commemorate a brave man. In the Langekloof district, where a branch of the family still lives, local tradition keeps alive the memory of one who, in his lifetime, was "a host in himself," \* and knew how to restore courage to the colonists when driven to despair by the ravages of Hottentots and

<sup>\*</sup> Dr. Philip's South African Researches,

Kafirs. The present patriarch of the Langekloof, also Tjaart van der Walt, now about seventy-five years of age, has also been a commandant in Kafir wars. When he was an infant of three months, his father fell in an engagement with the enemy at the age of twenty-one. When struck by a bullet, he cried, "Father, I am mortally wounded; I am to die; care for my wife and child." His father, the famous Tjaart, replied, "Die at ease, my son; I shall provide for all." He then offered up a prayer for his son, and gave him in charge to two burghers, at once rushing again into the thickest of the fight. Before the engagement was over his son had expired. A few weeks after, the old commandant met his end in an attack on a

kraal of Hottentot invaders, also by a bullet.\*

To return to our account of the Doppers. The Van der Walts and other families who moved northwards settled in Rhenosterberg (now Middelburg district) and along the Sea Cow River (now Philip's Town district). Gradually they developed the peculiarities which have won for them their distinguishing epithet. Living in secluded districts, clinging to old fashions and habits, inter-marrying only among near neighbours and relatives, a clannish spirit was formed, separating them not merely from the English settler of later date, but even from their own fellow-countrymen. The broad-brimmed felt hat, the hair cut as above described, the short jacket, with stiff collar or collarless; the nether garments worn loosely in sailor fashion, a small knife, formerly manufactured at Genadendal, stuck in a leathern sheath, and worn below the hip-whoever was thus equipped was welcomed as a clansman, while everyone accoutred in more modern or English style was looked on as an alien. It would hardly be correct to describe their ways of living and thinking as specifically anti-English; they were rather anti-modern. On the whole, this class of people may be described as eminently loyal to the British Government, not from any English leanings certainly, but from their quiet conservative habits, and even from religious feeling. The splendid sheep-farms which fell to the lot of the Van der Walts in the Colesberg division in the good old days of Landdrost Stockenstrom proved that the grantees were favourites of the Government. When men of this class crossed the Orange River at the time of the great trek, they did not exhibit the violent disaffection which characterised Retief, Maritz, Pretorius, and other leaders of the emigration. They moved northwards, simply as their fathers had done, in quest of larger grazing grounds for their flocks and herds.

The following anecdote will illustrate the conservatism and the loyalty of people whose reading is confined to the Bible, and whose taste often prefers the Old Testament to the New:—About twenty-five years ago, the political excitement caused in the Colony by the efforts to obtain a new constitution, spread itself even to the remote farm-houses inhabited by Dop-

<sup>\*</sup> Communicated by Rev. Mr. Rousseau, Uniondale.

pers. The gravest elders of the people had serious doubts about the new desire for self-government. They could compare it to nothing in the Bible, save the demand of the Israelites in the time of Samuel to have a king, even as the Heathen nations around. It was the will of Heaven that we should be under the Queen of England, and it became us as Christians to be contented with our lot. The desire for a constitution would lead to national apostacy.

A clergyman thought it his duty to calm the apprehensions of his worthy parishioners, and argued in this wise: "It is all very well to speak of submission to the Queen and the Governor at the Cape; but sometimes the Governor passes a law which you resistfor instance, Sir Harry Smith's Militia Act, which you say would make soldiers of us all. Now the Queen knows how difficult it is to give us all satisfaction, so we are to ask her to allow us to make our own laws about defence against the Kafirs, and so forth. With the best will the Queen, who is only a woman, cannot satisfy the colonists." This was too much for the lady of the house, a Van der Walt, born Kruger. With great warmth she interrupted, "Sir, how can you say the Queen is only a woman? Do you not know that God's spirit rested on Deborah and other women who judged Israel? I had rather be under the Queen than under your self-made Governors." To this argument there was no reply; the clergyman had to sound a retreat.

The frequency with which Scripture is appealed to by this class of people strikes a stranger as curious. It is not only when a theological opinion or a moral question is under discussion that the Bible is cited, this takes place in reference to any matter of usage or taste. For instance, it is well known that the colonial farmers in general lay themselves open to criticism for the indecent haste with which a widower will contract a second marriage. An ordinary Boer, if taken to task on this head, appeals to the circumstances of the country, where no one has middle-aged or elderly unmarried female relatives to undertake for a time the charge of motherless children. If they are not to be neglected, a step-mother must be found with all convenient speed. But a Dopper will likely quote Scripture somewhat in this fashion: "Do we not read that the patriarchs mourned forty days for their dead? There can be nothing wrong if six weeks elapse between the funeral and the second wedding."

Were a Washington Irving to appear in South Africa, his pen would find congenial employment in pourtraying the quaint modes

of speech found amongt this class of colonists.

But the ecclesiastical peculiarities of Dopperism are even more marked than its social or secular features. The intensely conservative spirit resisted innovations in worship even more than in secular life. The principal Shibboleth of the sect was the *Psalms of David*, to the exclusion of all hymns, ancient or modern, in public worship. In the beginning of the present century, hymns were introduced into the service of the Reformed Church in Holland and

in South Africa. There and here the innovation was rejected as inconsistent with Calvinistic orthodoxy. In other parts of the Colony, elderly members of the Church were also found who objected to the introduction of the hymns; but these died out or gradually were reconciled to the change. Not so the inhabitants of the tracts abovenamed, afterwards embraced in the great division of Colesberg.

In their antipathy to hymns, and in other features of their religious opinions and life, the Doppers strongly resembled the hyper-Calvinistic Highlanders of Scotland. But human nature is the same everywhere, and it is not in Scotland or Holland alone that counterparts to Cape Dopperism can be found. In Russia millions of Greek Christians are estranged from the Established Church of Peter the Great on grounds like the following:—The Sacred Name is misspelt, the sign of the cross is not made in orthodox fashion, tobacco is tolerated by a degenerate Church. Hence multitudes submit to civil disabilities, sometimes to violent persecution, rather than conform. In this country a congregation has been thrown into violent commotion by the appointment of a lady to play on a seraphine in Church, or by the appearance of a female teacher in a Sunday-school. Has not the apostle commanded that a woman shall not teach in the Church?

As the use of hymns in public worship gradually estranged this class of men from the Dutch Reformed Church, another main cause of uneasiness among them was the appearance of increasing zeal among their clergy for the religious instruction of the coloured population. The prejudices of the more narrow-minded among the Doppers were so strong that they professed to quote Scripture against the operations of the missionary. The curse of Ham was the stock argument. The better disposed professed to have no objections against teaching the blacks, but the idea of meeting in the same house of prayer, and thus gradually obliterating a distinction which Heaven had established, was an abomination. Colonial prejudice against colour showed itself here in the most intense forms, but clothed with the sanctions of religion. The deliverances of the philosopher of Chelsea and the appeals to Scripture, till recently common among preachers in the Southern States of the American Union, would find their parallel among the farmers of the Colesberg and Albert divisions.

Of their doctrinal peculiarities, more need not be said here than that it has become their ambition to preserve the most rigid type of Calvinistic orthodoxy, from which they believe that even the orthodox clergy of the Dutch Church in the Colony have too much

departed.

As regards their morality, the Doppers maintain a high character. In the Rhenosterberg (Middelburg) district, a clergyman could report that during a long course of years he knew only of one drunkard, and he in his old age became thoroughly temperate. Barrow tells us that among the remote farmers of the Colony it was the general

custom to introduce the morning hymn by a morning dram. This practice, no doubt, was found among the class in question, as well as among others; in spite of it the Dopper generally has a good character on the score of sobriety. In the district just named, during a period of thirty or forty years, not one case of illegitimate birth could be found.

But candour requires us also to admit certain drawbacks to the favourable estimate of their character. The social exclusiveness of the class shows itself in unpleasant forms. The traveller will complain that they are wanting in frankness, civility, and hospitality. A sweeping accusation of this kind would be unjust, still there is ground for the remark that they contrast unfavourably in these respects with other classes of Dutch farmers. So also the tendency to consider themselves religiously and otherwise superior to their neighbours

forms a less amiable trait in their character.

It will easily be understood that while their exclusiveness crámps them, it can also give them a certain force of character. Thus it has frequently been noticed, for instance in the Transvaal to which the sect has spread, that Colonial farmers of polished manners, of sound sense, and of considerable intelligence give way in the Council Chamber or the field of battle to a narrow-minded Dopper. I heir conviction that they are a select class, a peculiar people that have kept the deposit of the faith pure, gives them a self assertion which others feel. When men have strong faith in themselves, others will easily believe in them. Something like the force of character which Cromwell and his Puritans exhibit, the Doppers have shown on a

small scale among their fellow countrymen.

Allow me here to give a sketch of one of this class of colonists; it will be a tribute to the memory of a venerable parishioner, a typical specimen of the Dopper. His name is Douw Gerbrand Steyn, the same as that of an ancestor whose name is mentioned in the early records of the Stellenbosch Drostdy, as a contractor for mason work to Government. His dress is of the most antique description, not varying in the least from that of his fathers in a former century. His old-world notions are uninfluenced by the nineteenth century. The sermon-book he reads was written at a time when the Copernican system was not yet generally received by educated men, and it confirms the testimony of his senses and of the book of Joshua that the sun revolves round the earth. His religious life is tolerably independent of clergymen and churches, as he lives some sixty miles from a church. This he does not consider unreasonably far, as he remembers the time when a man had to travel 400 or 500 miles to Cape Town to get married, or to procure a few pounds of powder and lead. His descendants think otherwise, they have founded the township of Steynsburg in the neighbourhood. In his household plenty and comfort in somewhat rough fashion are the rule. He at least is not inhospitable. He does not trouble himself with the turmoil of the world, He is a loyal subject, but has one grievance

against the English Government. Did it not tax his slaves just as his horned cattle, thereby sanctioning his rights to one and the other? What right then has the Government to listen to the instigations of Dr. Philip and deprive him of the property he holds just as lawfully as the patriarchs held their slaves? The miserable pittance of compensation money he scorns to touch: let the Government do with it what it likes, it has been guilty of robbery. His family connections are worth noticing. His wife, a woman of spirit, is a daughter of the famous Tjaart van der Walt, and has brought up about a dozen sons and daughters who are parents of large families. At the time of his death, not twenty years ago, this octogenarian saw grandchildren who were already grand-parents. His lineal descendants numbered between four and five hundred, and the figure would have been higher were it not that several of his grandchildren had married their cousins-german. No wonder that emigration is the rule with such a prolific race. They crossed the Orange and the Vaal Rivers, and are not far from the Limpopo. At the present rate of advance the conjecture may almost be hazarded, that the next generation may sing the Dutch Psalms of David on the banks of the Zambezi, not to mention the dream of some enthusiasts in the Transvaal of a settlement in Palestine.

One of the grandsons of D. G. Steyn is Mr. Paul Kruger, the Transvaal envoy to Europe. The prominent position he occupies among his countrymen is owing not merely to his courage as a hunter, his ability as a military leader in expeditions less pretentious but more successful than that against Secocoeni, or his sagacity as a councillor. The influence which his religious traditions and convictions have had on his character has to be taken into account in explaining the position he occupies.

It would be out of place here to give a fuller account of Dopperism in its religious characteristics and its ecclesiastical history. My apology, if any be needed, for entering as largely as I have done on topics of this kind, is simply this: The inventory of the Boer's intellectual and spiritual goods is small. If he is to be looked at in a human light at all, his religion must come into view prominently,

it is the chief item in the catalogue of his possessions.

Perhaps I may be allowed still to mention briefly one or two facts and dates in connection with the history of the system as not un-

interesting.

The most important epoch in its ecclesiastical history was the year 1858, which witnessed the arrival in the Colony of a clergyman from Holland,\* who sympathized (as the Colonial Dutch Clergy had not done) with the peculiar opinions of the sect. The result has been a schism, establishing about twenty seceding congregations in the Colony, the Free State, and the Transvaal. While the Dutch Church deplores the secession and regrets that the seceders have been

confirmed in some of their prejudices, it must be granted that the clergyman in question has successfully combated other prejudices and given an impulse to the cause of education among a retrograde people. An A,B, of the Cape University, for instance, is now teaching classics and mathematics in an academy designed for the benefit of this sect.

The present year has, however, witnessed a new schism. The more obstinate members of the community dread the spread of enlightened views, and even of a missionary spirit, in their little Church. Though formed expressly in order to escape the liberalism of the age, it is not considered illiberal enough. Hence one of their ministers \* with a number of followers has set about the establishment of a still straiter sect. This movement is explained by the simple fact that increased intercourse with other colonists and the extension of various civilizing agencies are tending to modify the habits and opinions even of those most anxious to walk in old paths.

Just because Dopperism is becoming modernized, it has been thought desirable to describe it ere it has become a thing of the past.

I have not thought proper to occupy your time and attention with an essay on any current topic in literature. In any sixpenny magazine from London, you can find contributions by men occupying the first rank in literature, in Church and State, superior to anything of the kind I could offer you. Be so good as to accept this contribution to a knowledge of your fellow colonists. If anthropologists and philologists claim our interest in behalf of a Bushman race which is nearly extinct, much more are we to study the peculiarities of those who are in a great measure to be, if not the brain, at all events the backbone of the nation that is being formed in South Africa.

Mr. Matthew Arnold, the great critic of Churches and Theologies, has insisted that light and sweetness are the great desiderata of a good working religion. Let us take the liberty of modifying his formula in the spirit of the Sermon on the Mount; what we desire is light and saltness. The body politic can more easily do without sugar than without salt. While we value the spread of light through the Public Library, the University, and similar agencies, let us estimate at its right value salt, even of the coarsest quality, wherever it is to be

found.

<sup>\*</sup> Rev. Mr. Venter, Bethulie, brother of Mr. Jacobus Venter, once Acting President of the Free State,

## The Hames of our Ribers.

### By Rev. J. A. HEWITT.

PERMIT me to add a small contribution to this interesting subject started by "S." in the Cape Monthly Magazine for November.

I cannot, however, agree with "S." that the names by which many of our rivers are known, are mixed; composed, that is, partly of one language and partly of another. It must be remembered that the Hottentot language was spoken in the Colony until a few years ago by some of the older coloured people, and they have handed down the traditional native names of these rivers. There is, for example, a stream in this district, called, in Dutch, Kleine Vette Rivier, but by the older coloured people N'aroo. It is true the names may be mispronounced and the clicks have been lost,-though there are more remains of clicks in the pronunciation of such words by the coloured people than might be supposed; but that the words are in the main purely Hottentot, though no precise account can be given of them, is almost certain, since they are neither English, Dutch, nor Kafir. By a precisely similar exhaustive process, it has been concluded that the bulk of river names in England is British, since they are neither Norman, nor Saxon, nor Latin, -in short because they cannot otherwise be accounted for.

The suffix-kamma is certainly Hottentot. The Rev. H. Tindall's Vocabulary of the Namaqua-Hottentot language gives Xkams (stem x kam) for water. The word kama spoken of by "S." as used in conversation by way of emphasis is more probably of Malay origin, and means "forsooth" with something of contempt, as "Hij will ook kama paard rij[den]." "He would also forsooth ride on horseback;" but kamma as a suffix to river names is too widely spread—extending from Clanwilliam to Kaffraria—to be a mere interjaculatory addition to the distinctive name of the river.

The following is a list of names ending in kamma, many of

them being the names of mere streams or bournes :-

Krakka-kamma, district Clanwilliam. Kalie-kamma, district Clanwilliam. Kap-kamma, district Swellendam.

Karee-kamma, district Riversdale (karee is a kind of willow).

Noetze-kamma, district George (which I am told means "dark-water.")

Gou-kamma, district Knysna. Zitzi-kamma, district Humansdorp. Kragga-kamma. (There is a farm Kragga in Riversdale district). Keis-kamma, Kaffraria (? gkeis. xkama--puffadder river);

and perhaps we might add Kamma-nassie, Kamma-gas and Chumie.

Another very common suffix to river names is—ka, which is perhaps the same as the Namaqua-Hottentot. Qap (stem qâ) a river.

We have Dip-ka, Gam-ka (?qgam-qâ or deep river), Dwyka,
Karree-ka, Kan-ka, Tar-ka, Be-ka, and perhaps also Karie-ga, Coe-ga,
Gwan-ga, Ka-ga, &c., though here I may be transgressing into

Kafir.

There is a large number of names ending in douw, though I am not sure that they are all rivers, especially in the Clanwilliam district:—Bi-douw, Wi-douw, Nar-douw, Kri-douw (one at Clanwilliam and another in the Zwartberg—Karoo), Tra-douw, and K'a-douw. This termination may be compared with the Namaqua Dau, to flow, whence dâu-xkams, a stream.

We have also such names as Kadie, Knuy, (? quei-giraffe), Naroo Gouritz, Gwyang, Trekentouw (said to be a corruption of the Hottentot words for "maiden's ford," about which there is a local legend), Knysna, Gamtoos (there is also a Gamtoos-berg in Union-

dale district), Gonubie, and Kei.

Our river names might be classified somewhat as follows:-

I. Native names.

(a). Hottentot, including all the tribes of this race.

(b). Kafir, mostly with prefix Um. II. Dutch names, by far the largest class.

III. English, in most cases simply translations from the Dutch.

It has been observed that the Arabs, when they penetrated into Spain, had no other word to apply to its finest rivers than Wâdy, the dry torrent beds of their own land,—the ample stream of the Boetus becoming "the great Wâdy"—Wâd-al-Khebir—Guadalquiver. The Dutch, on the contrary, when they settled in South Africa, applied no other word to its smallest streams and dry torrent beds than the dignified rivier.\* Hence we have such contradictory terms as Drooge Rivier. In only two known instances did they substitute beek—brek or brook—the Liesbeek and the Krom-beek, and even the latter of these is doubtful. Although we have in English so many words for running water,—stream, brek, bourne, brook, rivulet, river,—yet the English settlers when they translated a name from the Dutch kept the one word river, because of its identity with rivier.

It is remarkable that the largest river of South Africa has no less than three names. By the natives, at least in the lower part of its course, it is called the Qgarip (i.e., probably "the River of the Wilderness"); by the Dutch it is generally called Groote River,

and by the English, the Orange River.

Riversdale.

<sup>\*</sup> In Cornwall, too, the smallest stream of water is called a river;

## New Books.

We have received a batch of new books, all of Colonial origin, and specially relating to South Africa, the review of which we are compelled, for want of space, to postpone until next month. One or two of them, however, we cannot pass without a word of present commendation.

In "Tiyo Soga, a page of South African Mission Work," the Rev. Mr. Chalmers, of Graham's Town, has given us a well-written and deeplyinteresting biography of a man who was altogether the best type of the really noble Kafir which civilization and Christianity has yet produced. Besides the story of Soga's chequered career, from time that, as a boy clad in a sheepskin kaross, he left his heathen father's kraal, until he was ordained as the first preacher of his race, and engaged in active work as a minister and missionary,—we have also narratives of striking incidents in bygone wars, and admirable descriptions of the national and social customs and habits of the Kafirs. Mrs. C. Brownlee has assisted Mr. Chalmers with some of her reminiscences, furnishing a thrilling account of the cattle-killing delusion in 1857, which was to bring to life all the past generations of the Amakosa. We are told, "So great was the faith of the Kafirs in these predictions, that widows and widowers actually sat day after day beside the graves of their husbands and wives. The women who married the second time abandoned their husbands in the hope of rejoining the first. Sutu, the mother of Sandilli. and the widow of Gaika, - the great chief of the Gaikas who died thirty years before, -for days toiled in attempting to obliterate her wrinkles, and to put herself in the most favourable and attractive condition for meeting with Gaika. Poor, foolish woman! She must have been nearly seventy years of age, and were Gaika to rise he would find his wife a perfect fright." The sketches of Soga's mission work in Galekaland, - so recently the scene of rebellion and warfare,—have a special interest at the present time. It was there that the good, gentle and beloved Tiyo died in harness,-to the last, labouring most self-denyingly and self-sacrificingly for the regeneration of his fellow countrymen.

Mr. Ballantyne's book opens with the history of one of the heroes of the volume, who is wrecked in Table Bay about the year 1819, and who is thus made able to meet the British settlers on their landing. Of the landing itself and of the subsequent "trek" inland, we have graphic accounts. Then follow descriptions, scarcely overdrawn, of the initial difficulties they had to contend with in the shape of rust, floods, bad government, &c. In his descriptions of these trials there is one particular good bit of writing which we had marked for quotation. It is the transference to his pages of Mr. Dugmore's story of how three wives of Clumber killed a sheep. The story was good, as Mr. Dugmore told it in Queen's Town, but if any of our readers

WATER SUPPLY OF SOUTH AFRICA. By J. Croumbie Brown. Edinburgh: Oliver and

COMPENDIUM OF HISTORY AND GEOGRAPHY OF SOUTH AFRICA. By G: M. Theal. Third Edition. Lovedale Institution Press:

<sup>\*</sup> Tiyo Soga. By John A. Chalmers. Edinburgh: Andrew Elliott, Graham's Town: J. Hay.

THE SETTLER AND THE SAVAGE. By R. M. Ballantyne. London: J. Nisbet & Co. History of Methodism, and Methodism in South Africa. By W. Clifford Holding. Published at the Wesleyan Conference Office.

wish to enjoy a good laugh they cannot do better than read Mr. Ballantyne's version. As a Christmas or New Year's gift for boys, few books will be found more entertaining within a certain range than this healthy account of the "Settler and the Savage" in the Cape Colony.

## Prize Serial Story.

The Publisher of the Cape Monthly has reason to be gratified with the response made to his advertisement offering a prize for the encouragement of Colonial Literature. No fewer than nineteen writers competed for the honour of contributing to the pages of this Magazine the best serial story illustrative of South African life. The following were the mottoes attached to the papers received on the 1st November:—"Bonne Esperance"—"Try and Trust"—"Who never tries cannot win the Prize"—"Frisch gewagt ist halb gewonnen"—"Little boats must keep near the shore"—"In hoc signo vinces"—"An Easterner"—"Quagga"—"Nemo"—"Leinad"—"Truth is brought to light by Time"—"Myrtle"—"Necessitas non habit legem"—"Stella"—"Rusticus"—"Democritus"—"Interest Omnium"—"Anon"—"Harry Fernhill."

The gentlemen who kindly consented to read the papers, and to decide upon their respective merits, were, the Rev. H. M. Foot, Dr. W. H. Ross, and F. Y. St. Leger, Esq. In consequence of indisposition, Dr.

Dale was unable to undertake the duty.

These judges, after a careful perusal and review of the several contributions, awarded the first prize (£20) to the story entitled "Adèle; a tale of the Huguenots at the Cape," bearing the motto "Bonne

Esperance."

For the second prize, three competitors are bracketed equal, viz:—
"How I settled in Natal," (motto, Frisch gewagt ist halb gewonnen);
"A Holiday in the Forest and what came of it," (motto, Little boats must keep near the shore); and "The Rose of Reitfontein," (motto, Rusticus).

Meteorology.

(FROM RETURNS FURNISHED BY THE COLONIAL METEOROLOGICAL COMMISSION).

1877. Month.	Barometer.	Mean Temp.	Mean Max.	Mean Min.	Max. of Month.	On what days.	Min. of Month.	On what days.	Rain-fall.	Number of days on which rain fell	Mean Humidity, complete Satura tion equals 100.
					PORT	ELIZABETH					
April May June July	inches. 30.097 30.016 30.260 30.221	63·8 59·4 58·8 58·5	70°1 67°5 67°5	28.3 23.5 28.3	84°0 86°0 79°0 85°0	4th 18th 2oth	50°3 42°0 43°5 44°0	24th 25th 24th	inches. 0*940 0*770 1*100 0*850	4 3 3 2	75 74 73 76
					W	ELLINGTON.					
April May June July	inches. 28.618 28.667 28.800 28.748	64.9 57.5 53.6 52.8	76·2 64·6 64·7 64·1	55.8 50.0 47.4 46.0	88.5 75.5 73.0 76.0	7th	40.5 41.0 38.5 36.0	25th	inches. 1.725 10*658 4.566	11 18 13 8	74 81 81

#### WORCESTER.

	inches.	0	0	0	O		0 [		inches.	- 1	
April	29.230	64.5	77.2	52.3	93.0	3rd & 18th	37.0	23rd	2.650	4	67
flay	29.204	56.7	77.2	48.4	76.0	31st	38.0	10th & 30th	4.160	9	70
unc	29.361	53°I	65.4	42.2	79.0	19th	28.0	26th	1.640	3	73
ıly	29.314	53'9	67.0	41.2	77.0	9th	31.0	28th	0.870	3	71
				KIN	G WII	LLIAM'S TO	WN.				
1	inches.	0	0	0	0	1	0		inches.	1	
pril	28:316	60.0	84*7	48.2	94.0	4th	36.0	24th & 20th	0.320	6	78
Alay	28.380	56.5	71.5	40.0	88.0	19th	30.0	11th & 12th	0.240	9	74
inc	28.608	51.2	67.9	34'4	80.0	1st & 27th	27.0	24th & 29th	0.750	4	77
ıly	28.577	54.4	68.8	39.5	80.0	24th & 27th	28.0	1st & 29th	1.050	6	75
p					SOME	RSET EAST.					
	inches.	0	0	0	0		0		inches.	ţ	
pril	27:506	61.0	74.6	55°7	90.0	4th	42.0	25th	1,710	2	69
Aay	27.446	56.0	66.3	47.5	79.0	18th	37.0 38.0	11th	0.120	6	- 66
une	27.657	21.6	62.1	41.0	72.0	tst and 27th	38.0	23rd	0.030	2	66
ıly	27.639	26.1	65.7	48.8	77*0	24th	38.0	17th & 29th	1.260	2	6
					ALIW	AL NORTH.					
,	inches.	0	0	0	0		0		inches.		
pril	25.756	59.1	80.0	48.5	88.0	1st	30.0	25th	0.020	2	6
lay	25.210	49.5	65.0	40.6	81.5	Ist	27.0	6th	2.440	7	7
ine ?	25.907	49.2	65.9	30'0	69.0	1st	20.0	18th	0.070	2	7.
ıly	25.887	12.0	62.0	32.0	69.0	24th 25th &	22.0	39th & 30th	0.590	4	8
		1			CLA	NWILLIAM.					
						NWILLIAM.					
-	inches.	0	0	0	0		0		inches.		
pril		66.9	83.8	49.6	101.0	3rd	34.5	24th	0.842	2	6
fay		56.4	67.7	43.5	84.0	2nd	33.8	29th	2.881	9 5	7
unc	* *	53*4	67.1	37.6	79.0	14th	31.0	25th 28th & 20th	1,460	5	6
uly		53.4	68.1	37.1	82.0	18th:	29.0	29th	0.780	3	6
				li s	CA	RNARVON.				-	
		0	0	0	0	1	1 0				
	inches.			_	ł	1			inches.		
\pril	25.985	64.5	79°1	49.9	89.0	13th	31.0	25th	0.030	1	4
May	25,024	50'1	64.2	40.7	79.0	1st	22.2	10th	0.162	5	6
une	26.086	44.4	65.3	37.2	72.0	25th 22nd 24th	24'0	23rd 29th	0.102	5	6
	20 000	1,	-,,	,,,	1	& 26th	'	1	200	ا د	·
					FR.	AZERBURG.					
	inches.	0	0	0	0		0		inches.		
		61.2	74*3	48.0	84.2	3rd 4th & 15th	30.0	24th	0.095	1	5
April		49.0	62.0	37.6	78.5	18th	26.0	18th	0.812	5	5
April			47.2	32.2	71.0	3rd	23.2	23rd	0.540	2	6
May		43°I	1 4/ 3		77.8	12th	26.0	Ist	1.370	4	6
May	••	43.1 43.1	47°3	35.2		i .					
May	::	43°I	60.8	i .	1	NELL'S POC	RT.				
May	::	43°I	60.8	i .	OWER	NELL'S POO	0		inches.		(
April	::	43.1	0 67.1	I 43.9	OWER	3rd	29.0	11th	0.480	3	6
vfay	inches.	42.8 43.1	0	) o	OWER	)	0	22nd 23rd &		3 1	6
May	inches.	0 21.4 42.8 43.1	0 67.1	I 43.9	OWER	3rd	29.0		0.480		6

The Barometer readings are reduced to the Temperature 32° Pahrenhelt; but no correction has been applied for height above sea level, except for Port Elizabeth; in this case a correction of 0.180 has been applied throughout.











